

THE EAST WHEAL SHEPHERD'S AND ROSE UNITED SILVER-LEAD MINING COMPANY (LIMITED).

Capital £30,000, in 30,000 Shares of £1 each, fully paid up.

Payable—10s. per share on application, and 10s. on allotment.

Where no allotment is made, the deposit to be returned.

Incorporated under the Companies Acts of 1862 and 1867, by which the liability of shareholders is limited to the amount of their shares.

No person's liability can exceed £1 per share.

Under the provisions of the Articles of Association, members who have fully paid up their shares are entitled, by the Companies Act, 1867, to have issued to them Share Warrants to Bearer, whereby the delay, trouble, and expense of ordinary transfers are avoided.

DIRECTORS.

GEORGE CHARLES STEWART, Esq., Iron Merchant, Liverpool; and Brierley Hill Ironworks, Staffashire.

FRED. RENDER, Esq., Corn Merchant and Miller, Manchester; Beach House, Etchells, Cheshire.

JOHN HOCKING, Jun., Esq., Engineer, Redruth, Cornwall.

ALEX. BURNES ANDERSON, Esq., Worsley House, Prince's Park, Liverpool.

W. PAGE CARDODOZI, Esq., Camborne, Cornwall.

CONSULTING ENGINEER.

Captain JOHN TONKIN, of Pool, Camborne, Cornwall.

BANKERS.

Messrs. WILLYAMS and CO., Miners' Bank, Truro.

SOLICITOR.

JOHN SEYMOUR FOWLER, Esq., Liverpool.

SECRETARY.

MR. EDWARD WILLIAM THOMAS.

AUDITORS.

(To be elected by the Shareholders.)

REGISTERED OFFICES.

CENTRAL CHAMBERS, SOUTH CASTLE STREET, LIVERPOOL.

ABRIDGED PROSPECTUS.

This company is formed for the purpose of purchasing and working an extensive mining property, being part of the Cargoll Manor Estate, in the parish of Newlyn East, in the county of Cornwall, and which is held under the Ecclesiastical Commissioners of England and Wales, at a royalty of 1-18th of the selling price of the minerals.

The property in question is nearly a mile in length, and about the same in width, having a run of about 800 fathoms on the course of the lodes, and is situated in the richest lead mining district in the county of Cornwall.

The position of the company's mine is all that can be desired, lying as it does between and in immediate proximity to two of the most lucrative and productive lead mines that have been worked in that county.

On reference to the Geological Ordnance Survey Map of the district, it will be seen that the east and west lode is there laid down by the Government Surveyors as intersecting the entire sett, and a long north and south lode is there also shown, which has been proved to run into the property.

On the eastern side it joins the well-known productive East Wheal Rose Mine, which has returned £274,000 in dividends, and on the western side it joins the equally well-known mine called The Old Shepherd's Mine, which has returned £200,000 in dividends. On the south it is bounded by and immediately adjoins the Cargoll Mine, which has made profits exceeding £15,000.

The East Wheal Shepherd's and Rose Mine was some years since worked under the name of Wheal Constance, and several thousand pounds were expended in driving levels, sinking shafts, &c., from which lead was raised and sold; but a dispute having arisen concerning the ownership of the property, litigation ensued, during which the mine was stopped. Upon a settlement of the dispute the property ultimately became vested in the Ecclesiastical Commissioners, from whom the present company derive their title, which is, consequently, a Government one, and indisputable.

The east and west lodes which proved so rich in silver-lead in the Old Shepherd's and East Wheal Rose Mines are known to pass through the entire width of this sett—that is, for a distance of nearly 800 fms. The lodes are in the same channel of ground as that which in the above-mentioned two mines gave such very large deposits of lead, and there is every probability they will be found equally productive in this mine. In the first three months from the adit, while driving it, and from the backs, £1,000 worth of lead was got and sold, which, at the present price, would realise more than £2000.

An engine-shaft has been sunk to the depth of 95 fms. from the surface, being 60 fms. below the adit, and in the former workings large quantities of lead were raised and sold from this part of the mine alone. The adit level, which is about 35 fms. below the surface, has been driven west on one of the east and west lodes for a distance of about 300 fms. in length, and several shafts have also been sunk on its course. This level was driven for the purpose of intersecting some north and south lodes known to be running parallel with the Old Shepherd's lodes, and just as the mine was on the point of being closed, a large north and south lode was actually discovered, and it was at the intersection of a similar lode in East Wheal Rose Mine that the rich course of lead ore, which yielded such large profits, was met.

The directors recommend a careful perusal of the reports of Captains J. Gross, Richard Pryor, and J. Tonkin, of Dolcoath Mine, who are all well known in the county, and are intimately acquainted with this sett and the surrounding district, having been engaged in the management of some of the most successful mines in Cornwall. These reports will be found to justify the directors in anticipating for the company a great and lasting success. Being impressed with this conviction, it is the intention of the directors to proceed at once with the working of the mine. The continuation of this adit level will thoroughly prove the resources of the property; and as in this operation no pumping machinery will be required, the great expense which attends the development of numerous mines will be dispensed with.

The mine is held under a lease or agreement from the Ecclesiastical Commissioners for the grant of a lease for a term of 21 years, renewable by agreement with the vendors to the company. The agreement entered into by the company with the vendors is dated 12th March, 1872, and can be seen at the company's office, under which the license to work this property is acquired by the company, in consideration of an allotment of 7000 fully paid-up shares and the payment of £1000 in cash, and under which agreement the lease is to be renewable for a further period of 21 years.

The vendors' confidence in this undertaking is evidenced in the fact that, with the exception of the above sum, they accept the whole purchase-money in fully paid-up shares, and which favourable arrangement the promoters believe will be accepted as the best guarantee that can be given to the public of their full belief in the value of the property, and the near prospect of much success.

The Memorandum and Articles of Association, plans, sections, original reports, and all other documents, may be seen at the registered offices of the company, where copies may be obtained on application, as well as forms of application for shares.

Application for shares to be made, with a deposit of 10s. per share, to the bankers of the company; or to the secretary at the company's offices, Central Chambers, 17, South Castle-street, Liverpool.

Report of Captain JOHN GROSE, manager at Cargoll Mines.

April, 1872.—GENTLEMEN: This is a very large sett, extending about a mile east and west, and $\frac{1}{2}$ mile north and south, and situated in the best district in Cornwall for the production of silver-lead ore. It is bounded on the west by the old Shepherd's Mine, which were extensively worked by the late Sir Christopher Hawkins, who erected smelting works thereon and realised great profits; on the south by the Cargoll Mine, which has given regular dividends up to a very recent period, and it is hoped that ere long they will be resumed; on the east by the celebrated East Wheal Rose Mine, which is too well known to the mining community to require any comment from me; and on the south-west in pretty close proximity, it has the Cliverton, and nearly all the lodes verging from these mines traverse this very desirable sett. The engine-shaft is sunk to the 60 fm. level below the adit, and some of the levels are extended a short distance. The 10 fm. level was driven to East Wheal Rose boundary, and good returns were made, but the 20 fm. level was not extended far enough to meet with this shoot of lead ore. There is another shoot of lead ore wrought on in East Wheal Rose, which must dip into this sett at a deeper level. The adit level is extended west from the engine-shaft (on East Wheal Rose, east and west lode) above 300 fathoms; in and about No. 2 shaft there was a good deal of lead ore raised, but it was neither proved nor sought for below that level except for a fathom or so, as the water could not be kept by a pair of tributaries, and if I am rightly informed they left a good leader of lead in the bottom of the sink. This level is driven about 70 fathoms beyond the western shaft, and just as the mine was about to be closed they intersected a large north and south lode of a very kindly nature; at this point the air was bad, and a new shaft required to be sunk, so this part was abandoned also. The adit here is about 35 fathoms from the surface.

In conclusion, I would strongly recommend this adit level being cleared, which can be done at a small outlay, as the shafts are in good condition, and then the shoot of lead in the bottom of the level about the No. 2 shaft may be seen. Also, that a new shaft be sunk on the adit end, which I have no hesitation in recommending as a good speculation.

JOHN GROSE, Manager, Cargoll Mines.

Report of Captain JOHN TONKIN, of Dolcoath Mine.

Dolcoath Mine, April, 1872.—GENTLEMEN: I have inspected this sett, and beg to hand you the following report:—This mine is situated in the parish of Newlyn East, and is very extensive, being about a mile in length, and $\frac{1}{2}$ mile in width, and is certainly one of the best lead districts in the county of Cornwall. Its local position is also very favourable; in fact, everything that can be desired. It is bounded by the Old Shepherd's Mine on the west, and by the East Wheal Rose Mine on the east—two of the best lead mines in the county. It is also bounded on the south by the Cargoll Mine. I find that many years since a shaft was sunk on an east and west lode in the eastern part of the sett to the depth of 30 fathoms below the adit, and levels extended towards East Wheal Rose, from which a considerable quantity of lead was raised. This shaft was afterwards sunk to the 60 fm. level, but the levels were not extended east under the run of lead in the upper levels. It was stated to me, by one of the most intelligent and able lead miners in the district, that there is a valuable piece of lead ground between this shaft and East Wheal Rose Mine. The other part of the mine to which I direct your attention is the west part towards Old Shepherd's. An adit has been driven west of the engine-shaft about 300 fms., for the purpose of intersecting some north and south lodes which are running parallel with the Old Shepherd's lodes; this part of the sett also holds out great hopes of success. As the adit is choked with stuff fallen from its back in a few places, I had no means of going into it to examine any part of the lodes intersected in it; but, from what I could see of the mine at the surface, I consider it a good speculation, and recommend it as such to any gentleman inclined to speculate in lead mines in this district.

JOHN TONKIN.

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Gresham House, Old Broad-street, E.C.

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THE ASHBURTON TIN AND COPPER MINING COMPANY (LIMITED).

Incorporated under the Companies Acts, 1862-67.

Capital £80,000, in 16,000 Shares of £5 each, fully paid up.

£2 per share payable on application, and £3 on allotment.

DIRECTORS.

A. CARNEGIE, Esq., 16, Bishopsgate-street, E.C. 1 Directors of the Allty-E. CURTERIS, Esq., 22, Great Winchester-street, E.C. 5 Crib Lead Mining Co. ALFRED EDWARDS, Esq., Lloyds.

T. E. GREENHOW, Esq., 11, New Broad-street, E.C. JOHN SUNLEY, Esq., 8, New London-street, E.C.

BANKERS.

LONDON AND COUNTY, London, and its Branches; and Messrs. WATTS and Co., Ashburton, Devon.

SOLICITOR.

CHAS. P. GREENHILL, Esq., 63, Gracechurch-street, E.C.

BROKER.

J. E. CRICKMER, Esq., 76, Old Broad-street, E.C.

AUDITORS.

Messrs. FARRAR AND FARRAR, Public Accountants, 38, Abchurch-lane, Lombard-street, E.C.

CONSULTING ENGINEER—J. G. KIMPTON, Esq., Derby.

SECRETARY—JOHN ABBOTT, Esq.

OFFICES.—22, GREAT WINCHESTER STREET, LONDON, E.C.

This company has been formed for the purpose of purchasing, working, and developing the very extensive mining property which immediately adjoins the town of Ashburton, in Devonshire, and which presents undoubted prospects of yielding large quantities of both copper and tin ores, together with the smelting, offices, &c., all in excellent condition, having been recently completed.

The engine of 120-horse power, with pumps, water-wheel, 60 ft. diameter, steam capstan, winding machine, patent giggers and crushers, &c., are all in perfect order, and valued at upwards of £15,000, and are capable of carrying on the workings 160 fathoms below the present operations.

The mine is held under an agreement for a lease for 14, 21, or 28 years, at option, at the very low royalty of 1-20th.

The workings, as at present opened, and upon which a very large sum has been expended, and of which the present company reap the benefit, consist of a main shaft, sunk to the depth of 105 fms., and various levels driven on the course of two lodes, both of which are mineralised throughout.

Good stones of copper ore have been broken in the several workings on both lodes from the south lode, about 40 tons of yellow ore has been sold by ticket, and there is every appearance that copper ore exists in masses. It may be observed, that this mine is situated almost in an east and west line with the Great Devon Consols on the opposite side of Dartmoor, and is considered to be a continuation of these valuable lodes, particularly as the lodes are precisely the same both in number and underlay.

The main and counter lodes of the Whiddon tin mining set, which immediately adjoins this property, are stated to run direct through this estate, and from recent sampling the south lode of this mine has also been proved to carry tin.

In all the various workings vast masses of sulphur-mundane have been driven through, and a quantity sold (the great north lode being no less than 60ft. in width), and as the market price has greatly risen of late, it is proposed to prepare large quantities for market at once, as this can be prosecuted without interfering with the other operations. This is expected to yield a considerable profit in itself, the mundane containing both copper and silver, as is verified by the assays.

The length of the cross-cut between the north and south lodes, at the 96 fm. level, is not quite 14 fms., and both lodes underlay to the south, and as the shaft is sunk in depth the distance between the two lodes becomes less, and at the junction of these lodes large masses of ore may naturally be expected. A perpendicular lode was also discovered in sinking the wheel-pit, which is shown on the plan accompanying the prospectus.

It is proposed (as recommended by the first mining men of the day) to drive an adit level from the Ashburton Valley to intercept the other six proved lodes on the property, at a depth of about 70 fms., and to drive a cross-cut through the south lode when the junction is reached (about 20 fms.).

It is confidently expected that when the shaft has been sunk to the junction of the above-mentioned lodes, large returns will be made.

The Totnes and Ashburton Railway having just been completed and opened, the cost of carriage has been reduced thereby from about 8s. to 1s. 6d. a ton, the railway station being only about one mile from the mine. This will in itself speak of the vast saving to the company.

For the whole of the above valuable property the proprietors have agreed to accept the sum of £50,000; £10,000 only in cash, and the balance in fully paid-up shares of the company.

The whole of the preliminary and legal expenses, including brokerage, commission, and every expense attending the formation and registration of the company, will be paid by the vendor.

The Memorandum and Articles of Association, with the agreement for purchase, dated 24th June, 1872, between Henry Barton, Esq., of the one part, and Mr. John Abbott, on the part of the company, of the other part, can be seen at the offices of the company.

Prospectuses, forms of application for shares, and all information may be obtained of the broker, auditors, and secretary, as above.

DIRECTORS.

Commissary-General ROBERT MAY GARDINER, 45, St. George's-square, Belgrave, and Pall Mall Club, S.W.

HENRY DUNCAN, Esq., 2, Blomfield-street, E.C.

OLIVER DALTON, Esq., Brook-green, West Kensington, W.

ROGER SWIRE TOMLIN, Esq., Manor-road, East Mousley, Surrey.

JAMES DAVIS, Esq., 2, Harley-road, Brompton, S.W.

DAVID GRAFTON GOATLEY, Esq., Bleak House, Chiswick, W.

WALTER SANDELL MAPPIN, Esq., Stanley Crescent, Kensington Park Gardens, W.

BANKERS.

LONDON—Messrs. BARCLAY, BEVAN, TRITTON, TWELLS, and CO., 54, Lombard-street, E.C.

ST. AUSTELL—DEVON AND CORNWALL BANKING COMPANY.

BROKER.—WILLIAM GODFREY, Esq., 9, Cophall Court, E.C.

SOLICITORS.—Messrs. KIMBER and ELLIS, 79, Lombard-street, E.C.

AUDITORS.—Messrs. JOHNSTONE, COOPER, WINTLE, and EVANS, 3, Coleman-street-buildings, E.C.

SECRETARY.—MR. GEORGE SEARLE CAUNTER.

TEMPORARY OFFICES—98, NEW BROAD STREET, E.C.

Three shafts have been sunk. The St. Blazey shaft is 45 fathoms below adit level, which is 18 fathoms from surface. There are also other levels driven at 15

Meetings of Mining Companies.

CWM VRON LEAD MINING COMPANY.

The second ordinary annual general meeting of shareholders was held at the London Tavern, on Thursday, for the purpose of receiving from the directors a report and balance-sheet, and to consider the reports on the condition of the mine by Messrs. Shelford and Robinson, N. Bray, and others (specially retained for this purpose), and for transacting all such other business as may be incidental to the meeting.

Mr. E. W. LAYTON (the secretary) read the notice convening the meeting. The report of the directors was read as follows:—

Your directors, in presenting their annual report and balance-sheet, regret that up to the present their anticipations have not been realised, notwithstanding the very favourable opinion as to the future of the mine obtained prior to the purchase of the property, from various independent sources, embracing the names of those whose undoubted honesty and ability were the best guarantees that the prospects of ultimate success were more than usually bright; nor do your directors see any reason yet to despair for the material features of the mine are the same, with the same master lode, in corroboration of which they have the pleasure of calling attention to the recent special reports of Captain N. Bray and Messrs. Shelford and Robinson, under whose advice it was that two of your directors (Messrs. Simmons and Heseltine) consented to be connected with the company, and it will be observed that, whilst taking some exceptions to one or two points of detail in the system of working, they state—"The opinion we have formed is that the lode so far has not realised in depth the expectations that were exhibited in the adit and 12 fm. levels, but we think that there is a probability of good shoots of ore ground being found in the lode; this can only be done by completing the works specified at first. We believe that when the sum we originally estimated (6000^l) has been expended, in the way we have indicated, some of the shoots of ore ground will be found which we think must exist in a masterly lode of this kind." As the amount estimated by Messrs. Shelford and Robinson has not yet been expended, and taking into consideration the advice given in the reports above referred to, your directors would urge upon the shareholders the desirability of acting upon such advice.

The report of Mr. Robinson (Messrs. Shelford and Robinson) was as follows:—

June 8.—In accordance with the instructions contained in your letter of May 31, Mr. Robinson has inspected your property, and the following report will convey to you our opinion as to its present condition and our views as to the future. When

Mr. Robinson first inspected this mine, in January, 1871 (before the mine was purchased by the present company), the indications pointed to the probability of good re-

sults following its further development. We stated in our report dated Jan. 31, 1871,

that we considered the shaft should be "further sunk and levels opened out on the

lode at the depths of 36, 48, and 60 fms., when we anticipate that the lode will

prove more productive and the mine pay good returns." We further stated, "We

consider that 6000^l should be devoted to dead work in opening out the lode in the

manner we have indicated." Since the date of Mr. Robinson's first inspection the

mine has been only partially developed, as suggested in our report, as will be seen

by the accompanying section.—1. The shaft has been sunk to the depth of 48 fms.

—2. The 12, 24, and 36 fm. levels respectively have been driven to the west of the

main shaft on the lode, but nothing has been done to the east of the shaft in any

level.—3. Nothing has been done in the adit level.—4. Some of the lode has been

stopped in the 12, 24, and 36. The result of these operations has not been so satis-

factory as was expected. The lode has been proved to continue the strong masterly

lode that it was in the adit and 12 fm. levels, but the improvement which was ap-

parent between these two levels has not continued so far as the further workings

have proved the lode. The lode still continues of the same great width, but is

composed chiefly of blonde, with but little lead, although all the other component

parts of it, such as quartz, cassiterite, calc-spar, &c., are favourable to the finding of

lead. In driving these levels sufficient attention has not been paid to cross-cutting;

the lode is 15 ft. or more in width in places, and driving a level of 5 ft. or so wide

does not prove the lode, and it is necessary to cross-cut at intervals to prevent the

bunches of lead ore (which may be expected) from being passed. In the adit

level a cross-cut should be made at the west breast, as ore ground may have been

pissed on the north and south in the level. On examining the stope in back of the

12, where a considerable amount of ground has been taken down west of the winze,

the lode was found to carry chiefly blonde, and not in remunerative quantities.

Stops of this kind should be discontinued as soon as they are found to be unpro-

ductive, as they do not assist in proving the lode. Between the 12 and 24 fathom

levels, west of shaft, there is a length of ground which should be cross-cut. In

the 24, west of engine-shaft, a cross-cut to the north in the 40, from the shaft,

proved the lode to be 15 ft. wide, but carrying no lead, and but little blonde; this

is unsatisfactory, as it indicates a falling off in the lode at this point between the 12 and 24.

A second cross-cut in the 24, at a point 65 fms. west of the shaft, proved

it to be 20 ft. wide, but carrying no ore. A cross-cut which is now being made in the west breast of the 24 may prove some ore ground. A cross-course is met on

the lode west of the shaft, the effect of which in the adit and 12 fm. levels was to

improve the lode. The effect of it in the lower levels has not yet been proved, but

it could be by cross-cutting. The breast of the 36 is now in the cross-course, with

indications of the lode becoming more settled. This is an important part to be

proved. A cross-course was met in the 24, east of shaft, but nothing has been done

since the first inspection to prove the effect of the cross-course on the lode at this

point. This cross-course was passed through in sinking the shaft to the 48, and a

favourable effect on the lode may be produced by this cross-course, which could be

ascertained by driving the levels east, and by cross-cutting. The 24, east of shaft,

is evidently driven on a branch of the main lode, the cross-course throwing the lode

out of its bearing. In the 48 the lode is looking kindly, and a good deal of water

is making, which is rather favourable. The opinion we have formed is that the lode

is not far from the surface of the ground, and there is a probability of good shoots of ore ground

being found in the lode. This can only be done by completing the works we spe-

cified at first. We advise the further works being confined to the following:—

1. Cross-cut at the west breast of the adit level. The course of the adit level being

northward of the previous course of the lode, it is not unlikely that ore ground may

be found south of it. 2. Cross-cut between the 12 and 24 fm. levels west, espe-

cially to prove the effect of the cross-course to the west of shaft. 3. Drive the 48 fathom

level to the east of shaft, and cross-cut to prove the effect of the cross-course to

the east of the shaft. 4. Discontinuing sinking shaft until the result of these works

has been ascertained. We believe that when the sum originally estimated (6000^l)

has been expended in the way we have indicated some of the shoots of ore ground

will be found which we think must exist in a masterly lode of this kind. The sur-

face works are the same as when we first visited the mine, with the addition of

some slime-pits and of another bundle.—SHELFORD and ROBINSON.

The report of Capt. Nicholas Bray was read as follows:—

June 3.—Having been requested by Capt. John Kitto to inspect the above mine, and report to you thereon, I beg to submit the following:—The mine is laid open

by means of an adit level driven westward on the course of the lode upwards of

100 ft., and an engine-shaft sunk on the underlie of the lode to the depth of 48 fms. under adit; the lode throughout the mine is generally large, and in places masterly,

chiefly composed of a brecciated mixture of killas, quartz, and mineral. The prin-

cipal workings (and from which returns of upwards 400 tons of lead and blonde

have been made) are westward of the engine-shaft, from whence levels have been

driven at the depth of 12, 24, 36, and 48 fathoms below the adit. There is nothing

in the 12, but from the section of productive ground stopped away from the

back and bottom of this level one might conclude that the present forebear of the

lode has reached the line or dip of ore ground, and after consultation with

Capt. Kitto we thought it advisable to put out a short cross-cut north to test the

lode, as it is in actual progress, and is an important point to come off. At the forebear of the 36 the ground is soft, and

not out of the influence of a cross-measure, and the lode, as might be expected in

the case, is barren. The 48 has only been driven about 50 ft. from the engine-shaft,

the last few fathoms driving showing a lode from 5 to 6 ft. in width, composed of

quartz and killas, intermixed with blonde, and spotted with lead ore. Nothing of

importance has been done eastward of engine-shaft to prove the lode: this could be

inexpensively carried out by extending either the 24 or 48; I should advocate the

latter, so as not to throw away any chance that might exist in a new and untied

section of ground, and at a good depth, having efficient machinery and pitwork

for that purpose. The length of the sett is about a mile, and of ample width: the

bearing of the lode nearly east and west, with a dip or underlie south of 2 ft. 6 in.

I need not give details as to the position of this mining property, it being in the Van and Llandeilo district, and on a parallel lode with the Van Mine, and under similar conditions of strata. In conclusion, I strongly recommend

for your consideration the further trial of the lode in the 24 west and 48 east, as

named in the body of this report. I have to thank Capt. Kitto for his courtesy,

and the explanations he afforded me.—N. BRAY.

The CHAIRMAN said those reports really placed the shareholders

in possession of every fact within the knowledge of the board. Al-

though up to the present time they had not met with lead in suffi-

cient quantities to meet their expenses, yet there were fair indica-

tions of improvement in depth. He believed nearly all, if not the

whole, of these mines had passed through a similar career; that is, the

expenditure had exceeded the amount estimated to bring them into a profit-giving condition. So far as the Cwm Vron was con-

cerned, the outlay originally computed as necessary to bring it into a

remunerative condition had not been expended; but at any mo-

ment they might come upon a rich lode, which would in a very short

time repay them all their outlay. The fact of their yielding so

much blonde was of itself a most encouraging feature, it being an old

Cornish saying that "blonde always rides a good horse." With-

out taking any unduly sanguine view, it was not too much to say

that, although so far disappointed, there were at least fair prospects of

success; but it would be necessary to call up the remaining

capital, the judicious expenditure of which he expected and trusted

would bring about the desired result—dividends. He then moved

the reception and adoption of the report and accounts.

Mr. EARLE seconded the proposition.

Mr. BONHORN, in reply to a question, stated that he had no further facts to add

to those communicated in his report, but should be glad to reply to any questions.

Capt. KITTO read his report, as follows:—

July 17.—Since the last shareholders' meeting we have sunk the engine-shaft to

the 48, ent lode, cross-cut the lode, and have driven west on its course about 10 fms.,

and for the whole distance driven it will average 6 ft. wide, and is productive of

both lead and blonde, presenting a strong, healthy appearance, and containing a

large quantity of gangue. A strong feed of

water is still issuing from the end, which we also regard as a favourable indication,

and we are pushing on this drive with full force and with a fair prospect of ere

long opening up some profitable ore ground. We have lately commenced to drive

this 48 east of shaft, for the purpose of proving a long run of untried ground, which

we have in this direction towards the valley, and east of the large cross-course,

which has disordered the ground all about the engine-shaft from the 36 down to

the 48. We have now got fairly out of its influence, and have turned the level in the direction of the lode, which I expect we shall reach in a few days (say, a fortnight at most); and this being, in my opinion, a fine piece of mineral ground, I think we have more than ordinary chances of making good discoveries; this run of ground, I may add, has not been proved below the adit level. The 36 has been driven west of engine-shaft a distance of 53 fms., principally on the south part of the lode, and in its course has passed through one or two good bunches of blonde; but, so far, we have not met with much lead. We are now cross-cutting the lode, in order to prove if the richest part has made against the north or lying wall; as in the upper levels the best ore was sometimes found on one side and sometimes on the other; but I shall be able to say more about this in course of another month. We have got through the lode in the 24 cross-cut, and have just started to drive west on its course; the lode altogether is more than 30 ft. wide, and the part we have commenced driving on contains a branch of ore about 4 in. wide. This, so far, has not resulted so favourably as I anticipated, but it is very possible that the ore has dipped away to the west faster than was expected, and by continuing the driving westward I think there is every probability of meeting with a decided improvement. In conclusion, I beg to remark that the results of the past year's active development has not proved so satisfactory as I anticipated, and I am bound to confess that I have been so far much disappointed; but there is still encouragement for the future, and by continuing the driving of the 48 east and west of engine-shaft, and cross-cutting the lode in the upper levels, I think there is a good chance of making some valuable discoveries, and establishing a permanently pro-

2 ounces of gold to the ton. In the meantime, however, the subscribed capital was exhausted, and one of the objects of the present meeting was to raise additional capital to work these productive lodes, and the shareholders would see by the report that the directors and their friends, who hold more than three fourths of the shares, are willing to provide £2500. for this object, provided the shareholders will furnish the same amount; and several of them are, moreover, quite willing to resign their seats at the board, in favour of shareholders who subscribe to this additional fund, and who will really give attention to the affairs of the company. He further hoped that those shareholders who had originated the appointment of the committee, and who do not represent one-twentieth part of the shares, would make themselves acquainted with the actual facts; and, instead of endeavouring to excite distrust and dissension, would co-operate with the holders of the nineteen-twentieths in carrying the company through to the success of which, from the immense extent and the great richness of its grant, it is capable.

A vote of thanks to the Chairman concluded the proceedings.

AUSTRALIAN AGRICULTURAL COMPANY.

The annual general meeting of shareholders was held at the offices, Gresham House, on Tuesday.

MR. EDWARD HAMILTON in the chair.

MR. W. ROBINSON (the secretary) read the notice convening the meeting. The report of the directors (which appeared in last week's Journal) was taken as read.

The CHAIRMAN, after a few prefatory observations, stated that the profits for the year amounted to £20,000., about one-fifth of which had been diverted from the pockets of the shareholders—partly in protecting capital, partly in repairing the omission of a large customer to make provision for his debts, and partly from the exactations of the Chancellor of the Exchequer. From the last-named impost they were not likely to be released, but he hoped such large deductions from the earnings would not occur again. Last year's

was the best they had made for some years; it should be in fairness remembered that it had been earned in times of considerable depression; but considering the extent of the property, and that those who had embarked their capital in it were accustomed to English prices and markets, he dare say the profit appeared small and inadequate. The principal articles of produce were coals and meat, and therefore, they had to deal in markets that were overladen by the abundance of the resources produced. For instance, in England the consumption of coal was something like 4 tons per head of the population of 31,000,000, whereas in Australia the consumption was barely $\frac{1}{2}$ ton per head of the population, which was far short of being 2,000,000. The consequence was that these two important articles of produce—coal and meat—so dear in this country, were largely in excess of the demand in Australia, so that they had to take their produce to the eastern markets, where their money was small, and he believed it would continue to be so until a better process of manufacture was established, and a better position was taken in the foreign markets. The article to which he more especially alluded was preserved meat, which he had the best authority for stating had already acquired a certain position in the market, the importation having increased from 3,000,000 lbs. in 1870 to 18,000,000 lbs. in 1871. As to the export of coal, putting the northern markets out of consideration, which was at present an immediate competitor, he believed he might say their coal was as available for export as the coal of Great Britain, and if he assumed its quality to be equal he should not be very far short of the truth; and assuming the price of the article to be the same, it is only fair to assume that the distribution of the trade would be determined by distance. There was no doubt, the eastern produce being so valuable and able to bear a heavy freight, that shipowners were willing to make a loss on the outward cargo of coal upon the profit of the return voyage, the consequence being that English coal was always successfully competing with them even in the eastern markets. However, circumstances were changing, and prices were rising enormously in this country; and if those prices were maintained there can be no doubt Australia will be benefited—indeed, the benefit has already been felt, and certain difficulties of freight can be arranged there can be no question Australia will command that market which geographically belongs to it. Having mentioned that during the year they had sold 200,000 tons of coal, he expressed a confident opinion that time would work in their favour, and that they would eventually get possession of new markets, which would tend to increase the profits of the company. He then moved the adoption of the report and accounts.—Mr. EAGLE seconded the proposition.

MR. WRIGHT having complimented the board upon the successful manner in which they continued to conduct the company's affairs, considered it impossible that such great disparity between the price of coal in England and that in Australia could exist for any length of time.

The report and balance sheet was received and adopted.

A dividend of 15s. per share was declared.

Messrs. R. H. Brown and J. G. Cattley were re-elected directors.

Messrs. D. A. Rivolta and M. Yeatman were re-elected auditors.

The CHAIRMAN, in reply to a question, said that he believed the excitement in the colony about the discovery of tin was quite unprecedented.

A vote of thanks to the Chairman and Directors terminated the proceedings.

YUDANAMUTANA COPPER MINING COMPANY OF SOUTH AUSTRALIA.

The annual meeting of shareholders will be held at the City Terminus Hotel, on Monday.

The report of the directors states that subsequently to the last annual general meeting the issue of the loan capital or mortgage notes was completed, making a total issue on security of the property £20,250. In July last Mr. Martin yielded to the urgent request of his co-directors, and consented to revisit the colony, in order to supervise the company's operations there. He left England accordingly on Sept. 2, and on his arrival in the colony immediately took in hand the financial and mining operations, restoring confidence to the one and energy to the other. After the sudden death of Mr. Fivash, in January, Mr. Martin selected and appointed Mr. F. Joseph Bottling to the office of superintendent, and the board has every reason to be satisfied with the appointment. The directors have received from time to time intelligence of the various measures adopted in the colony by Mr. Martin, resulting in the Blinman Mine being placed in an active and progressive position. The main shaft, constructed to reach Hill's lode, has been completed and equipped with engine and pumping machinery, and is now fitted for extensive workings, and the water will be extremely valuable for dressing the great masses of ore existing above this level in the upper portions of the mine as well as the piles lying on the surface. The sulphurites of copper at the 55 fms. unwatered may be looked forward to as the sources of a good supply of high-class mineral. The mineral lenses of the company have been renewed, in accordance with the requirements of the Colonial Legislature, advantageously.

EAST GUNNISLAKE AND SOUTH BEDFORD CONSOLS.—At the quarterly meeting, on Tuesday (Mr. C. F. Carne in the chair), an account of expenditure and receipts, showing a cash balance of 47L 13s. 1d., was passed. An estimated account of payments and receipts, before the meeting to be held in October next, showed an estimated debit balance of 34L 4s. 5d. A call of 2s. 6d. per share was made. Capt. James Bray says—"Our prospects are very encouraging, especially in the 42nd east, west of Impham shaft."

SOUTH WHEAL FRANCES.—At an adjourned meeting, held at the account house, on Monday (Mr. John Thomas in the chair), it was proposed by Mr. John F. Penrose, seconded by Mr. Sambell, and carried unanimously—"That this meeting regrets the retirement of Mr. Broad as Chairman of this company, and begs respectfully and cordially to tender to him its best thanks for the ability and courtesy with which he has gratuitously performed the duties of his office for so long a series of years." The purser and manager were empowered to select a second agent for the mine, subject to confirmation at the next general meeting.—At the request of Mr. John F. Penrose, Capt. A. T. James (prior to his appointment as manager) made a thorough inspection of the mine. In concluding his report he says—"I am fully satisfied the present mode of working the mine must not be continued, and that unless more energy be used on the part of those concerned, it will gradually but surely sink in public estimation. A very important and, indeed, essential point I consider to be that of putting the pitwork in an efficient condition, that the stamps may be kept fully and constantly at work, when no doubt the development of the mine, especially of the western ground, will prove a source of profit to the shareholders. It will cost about £300. to put the pitwork in good working order. There will then be about 200% worth of pumps and old iron for sale, which will partially meet the outlay, and only leave a balance of about 100% for the adventurers to pay."

GUNNISLAKE (Clitters).—A four-monthly meeting of adventurers was held at Tavistock, on Tuesday, Mr. J. Bayly in the chair, when the statement or account was read, showing the expenditure to be for the four months ending April 30, including lords' dues, £2500. 4s. The receipts were—balance from last account, 104L 13s. 1d.; calls, 492L 10s.; copper ore, 145L 19s. 9d.; tin ore, 120L 7s. 2d.; other receipts, 3L 10s. 8d.; total, 327L 7s. 8d., leaving a balance of 76L 3s. 8d. to the credit of next account. The agents speak more confidently of the future prospects of the mine, by stating that from the recent improvements in the deeper levels the mine bids fair to be a lasting and profitable one in depth. [The agents' report is among the Mining Correspondence.]

PHENIX.—The four-monthly meeting was held at the mine on Monday. The account showed—Expenditure for four months, including lords' dues, 10,462L 14s. 1d. Receipts—Tin sold, 10,988L 15s. 10d.; copper ore, 320L 12s. 1d.; other receipts, 13L 16s. 7d.; balance from last account, 39L 14s. 9d.; total, 11,717L 19s. 3d. A dividend of 5000L (7s. per share) was declared, carrying forward 72L 4s. 8d. to the credit of next account. The report of the agents, Captains J. Hosking, J. Simmonds, Crowle, and Harvey, which was considered highly satisfactory, is given below. The meeting was then made special, and the shares were subdivided from 500 to 6000. The prospects of the mine were never more encouraging.

WEST PHENIX.—The four-monthly meeting was held on Monday. The expenditure for the four months ending April 30 amounted to 116L 19s. 4d., including part of the cost of new steam winding-engine; balance from last account, 34L 7s. 4d.; together, 150L 16s. 8d. The receipts were—On account of calls, 73L 15s.; on account of tin sold, 40L 6s.; balance to the debit of next account, 3L 8s. 8d. A call of 4s. per share was made. The agent's report concludes by stating that the mine at present looks very promising to be a lasting and profitable one in depth.

BWLCH CONSOLS.—At the meeting, on July 12 (Mr. T. Holroyd in the chair), the audited balance-sheet and profit and loss account were adopted, and the retiring directors re-elected. Capt. R. Northey reported that—"The machinery is in good working order, and we have 10 tons of dressed ore in the stores. In conclusion, I beg to assure you that everything, as hitherto, shall have our best attention for the future development of the property."

BWADRIN CONSOLS.—At the meeting, on July 12 (Mr. T. Holroyd in the chair), the audited balance-sheet and profit and loss account were adopted, and the retiring directors re-elected. Capt. R. Northey reported that—"Since the last general meeting we have opened 328 fms. 2 ft. of ground, and in the same time drawn to surface 7767 tons of stuff, which has been treated for dressing purposes: we have also erected a new 12 ft. diameter water-wheel, 2 ft. in breast, for working machinery for dressing the copper, they are working upon a valuable iron lode (red hematite) will assay at 60 per cent. for iron). It is believed that 2000 tons per month can be raised, leaving

find has greatly facilitated our crushing and dressing operations. All our machinery is working well, and we shall sample on Thursday next 30 tons of the usual quality lead ore."

SOUTH CARN BREA.—A quarterly meeting was held at Redruth, on Monday (Mr. Pike, the purser, in the chair). A little more than a year ago the mine was about to be abandoned, and would have been but for Mr. Pike's confidence in its prospects. Success then quickly followed, and dividends are now regularly paid. The accounts showed that the net receipts were 2396L 1s. 10d., including 2050L 5s. 2d. for copper and 360L 2s. 6d. for tin. The labour cost for April, May, and June had amounted to 1040L 1s. 3d., and the merchants' bills to 75L 5s. 3d., leaving a profit on the quarter of 69L 1s. 4d. At the last meeting there was a balance after payment of dividend of 122L 1s. 4d., and this, added to the present balance, made a total of 724L 11s. 4d. available. A dividend of 2s. 6d. per share was declared. A letter was read from Mr. Cartwright, stating that he had ordered Mr. Basett to raise the dues to 1s. 1d., to which the shareholders saw no objection. [The agent's report is among the Mining Intelligence.]

NEW PEMBROKE.—At the meeting, on Tuesday, the accounts to the end of April presented the following credits:—Balance from the last account, 202L 10s. 4d.; 50 tons of tin, 45L 2s.; 93 tons of copper, 820L 12s. 10d.; sundries, 5L 0s. 7d.; amounting together to 560L 7s. 9d. The costs for four months, including about 300L required extra by the adoption of the four-weeks month, &c., are 3994L 1s., leaving balance of 1613L 4s. 9d., from which a dividend of 4s. per share, leaving amounting to 1280L was declared, carrying forward to next account 332L 4s. 9d. The mine still continues to open out well, the chief point of interest being the 90, which has been driven east of the shaft 50 fms. through good tin lode, the lode in the end is 7 ft. wide, and worth 90% per fathom.

WHEAL GRAMBLER.—At the meeting, held at the mine, on Wednesday (Mr. W. P. Cardozo in the chair), the accounts, costs and sales of tin for the past three months were produced and allowed, showing a debit balance of 73L. A call of 1s. 6d. per share was made. Capt. John Tregay reported very favourably of the operations and prospects of the mine; and Capt. William Nancarrow, with several practical authorities present, spoke in high terms of the prospects of the mine, and of the manner in which it was being developed.

WHEAL METAL (Tin).—At a meeting of shareholders, held at Gresham House, yesterday (Mr. Henry Pownall in the chair), the accounts submitted showed a balance of liabilities over assets of 836L 6s. 6d. Resolutions were passed empowering the issue of the un allotted shares at 1s. per share, the shares to be divided *pro rata* amongst the present holders, and treated in the books of the company as 2s. fully paid-up in the capital account. Upon the completion of the foregoing arrangements an ample balance will be in hand to vigorously develop the mine, and bring it to a successful issue. All communications on this business must be addressed to Mr. Spargo, of Gresham House, E.C.

MINERAL WEALTH OF THE ASHBURTON DISTRICT.

In last week's Journal we briefly alluded to two enterprises now promoted for the development of some of the mineral resources of that remarkable, but hitherto compulsorily neglected, district of Ashburton and its neighbourhood. The one, Ashburton Tin and Copper Mining Company, which was launched in our columns of Saturday last, having for its object the expansion of existing works; and the other, the Storms Down and Sigford Tin Mines, which is forthwith to be launched for the resuscitation of former workings. Both are brought forward under the best guarantee of success. The Ashburton Tin and Copper Mining Company is *sans peur et sans reproche*, for it is quite impossible to gainsay the character and known social position of the members of its board and officers, while what has already been done in the prosecution of works justifies the directors in recommending it as an investment where there is every reasonable hope of remunerative returns by the application of the capital now sought. The Storms Down and Sigford Mines are in the hands of gentlemen of equal integrity and mining knowledge.

We do not see that these undertakings will in any way clash. True, both seek for the procreation of tin, but the first looks, in a large degree, for copper also, while the latter does not regard that metal as one of its products, but seems to have reason to consider that arsenical pyrites will of itself be a source of large profit, embodying nickel and cobalt in its dross or slag. However, were both looking for tin, and tin exclusively, we could not regard them as competing companies. The demand for tin is such that every available point of production is sought for, yet the supply falls far short of the requirement, so that the enlargement of existing undertakings and the revival of dormant ones is merely a natural commercial consequence under the circumstances, and is totally devoid of competing and antagonistic feelings. We do not, therefore, see why the best possible understandings should not exist between these two associations, more especially as they are in the same neighbourhood, and not far removed from each other, the one being within 1½ miles and the other 2½ miles of Ashburton, in the same general direction.

We have said that Ashburton and its vicinity has been compulsorily neglected, as respects its true position in mineral soil, which is only too true. It has arisen chiefly, if not solely and entirely, from the absence of railway accommodation, but the opening of the line from Totnes to Buckfastleigh and Ashburton, on May Day of this year, has given new life and energy to the whole district—the face of everything, in fact, is changed by being thus brought into direct, cheap, and rapid communication with all parts of the kingdom, and hence the reason that projects are now afloat for the full development of the yield of iron andumber, in addition to tin and copper. Until then all produce from, and materials to, were carted to Newton or Totnes at an expense of never less than 6s. per ton for the eight miles, but now they are conveyed for the 9½ miles by rail for as many pence, and the traffic manager of the South Devon Railway Company recently met the representatives of the commercial and mining interests of Ashburton and Buckfastleigh, to express the determination of the board to encourage the expansion of every branch of local industry by reducing the goods tariff to the lowest possible rate.

Sir Henry de la Beche, in his Geological Survey, makes special mention of the Ashburton district as presenting remarkable indications of mineral wealth of various kinds. He makes special mention of iron, but until now his foresight and knowledge was not regarded, and a gentleman, a geologist, until lately a resident at Ashburton, was considered as almost a lunatic for expressing his conviction that the town was built on bed of iron andumber.

However, we will not dwell on this subject, which we leave for a subsequent article, but return to the point at which we started—the question of the two new companies now organised for the increased production of tin and its adjuncts to help to keep pace with the marvellous demand for every description of the mineral wealth of Great Britain, both crude and manufactured, and repeat our conviction that the stamps may be kept fully and constantly at work, when no doubt the development of the mine, especially of the western ground, will prove a source of profit to the shareholders. It will cost about £300. to put the pitwork in good working order. There will then be about 200% worth of pumps and old iron for sale, which will partially meet the outlay, and only leave a balance of about 100% for the adventurers to pay."

PNEUMATIC STAMPS.

These stamps are causing great interest in Cornwall, and are being ordered at a great many mines. The first erected in Cornwall was at Wheal Lucy in April last, and the following reports upon them by the engineers of the company will be interesting to tin miners:—

Wheel Lucy, July 18.—The pneumatic stamp commenced working here on April 9, and has since that time been regularly at work on an average ten hours per day (Sundays excepted), and its working throughout has been in every respect satisfactory. The quantity it is capable of stamping we find to be about 10 tons per head in 24 hours, of quite equal in hardness to the average of the county. Each head when new (without lifter, &c.) weighs 84 lbs., and was last week for the third time replaced by a new one. Presuming that those now in use are one-third part worn, we find the total amount of metal used per head for the 3½ months (working 10 hours per day only) to be 280 lbs., but as these heads were changed when 2½ths only of the original weight were worn off, the actual amount of metal worn would be 112 lbs. We have not had an accident of any kind, and we may safely say no let or hindrance on account of the stamps to the extent of six hours during the whole working.

We have recently had it taken apart for the purpose of examining it, and ascertaining whether the bearings, or any of the working parts, showed any signs of undue wear, but we could not discover any.

Viewing the question as to the desirability or otherwise of erecting the pneumatic stamp, as compared with those ordinarily used, we cannot but come to the conclusion that to do an equal amount of work, the first cost of the pneumatic stamp, and the time required for erecting it, will be much less than with the ordinary ones. That the cost of fuel in working, and the expense of keeping it in repair will be also less.

Having carefully watched its working, and given the matter that consideration which one of such importance requires, we are of opinion that for effective working, economy, and durability it is superior to any stamp we have seen.—GEORGE EUSTACE AND SON, Engineers.

BAMPFYLDE COPPER MINE.—Several of the proprietors from London, Liverpool, Devon, &c., met the agents on the ground, together with a practical mining engineer from Cornwall, all were highly pleased with the present satisfactory state and future prospects of this important mine. It was estimated that this company would sell for the last two months' working 40 tons of copper ore (which is of a very rich quality, realising about 18% per ton); but they had shipped to Swansea about 60 tons for this ticketing, and they have also on the floors at the mine 20 tons of rich copper ore made ready towards the next sampling. Besides about 300 tons of slimes copper, estimated worth about 4% per ton; independent of the copper, they are working upon a valuable iron lode (red hematite) will assay at 60 per cent. for iron). It is believed that 2000 tons per month can be raised, leaving

a profit of at least £200. per month from this source alone. The mine is looking well and is being vigorously worked, and is expected to prove one of the most productive and best dividend-paying mines in Devonshire. This energetic company have decided upon employing, in addition to their number, 60 more practical miners.

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

THE HUDSON GOLD MINING COMPANY (Limited). with a capital of 50,000L, in 5L shares, has been brought out during the past week, and all the present issue of capital has been subscribed privately. The object of the company is to work a gold mine in Calaveras County, California, already opened upon the greatest mother lode upon which the Amador, the Oneida, the Kennedy, the Grizzly, and many other successful mines are situated. The ore assays \$27 per ton, while the expense of working should not exceed \$5. The company will at once erect steam hoisting works, and vigorously push the operations at the mine. Mr. J. J. Dunn, one of the directors, sailed from Liverpool in the Olympus on Thursday, and visits the mine to order the machinery, and see to its erection.

SOUTH GREAT WORK bids fair to rival some of its best neighbours. The mine is opening out a first-class property, and the appearance of the huge piles of stonework goes far to convince the visitor that this mine is not an ordinary speculation.

ABERDOVEY LEAD MINES.—The accounts from these mines are of most encouraging character. The 32 fm. level is being driven with all possible dispatch. It was expected that before this the mine would have been completely unwatered, but this has been found to be impossible, in consequence of the recent unprecedented wet weather, which has caused most mines to be flooded. As soon, however, as this difficulty is overcome sinking will be resumed, when almost immediate results may be expected.

MINING AT ST. BLAZHEY, CORNWALL.—The South Prudeaux Wood Mine is attracting great attention in this neighbourhood. The rich copper lode, as well as the tin lode in the deep adit, at the depth, can scarcely be rivalled. This latter is contiguous to the once celebrated Fowey Consols, on the same lodes. The latter paid nearly 300,000L in dividends on a small outlay, and therefore it may be inferred that the South Prudeaux Mine will rapidly illustrate all the advantages of the position.

PRIDEAUX WOOD TIN AND COPPER M

Modern Ordnance and Projectiles Compared, by Capt. S. P. Oliver, R.A., will be interesting to a large number of readers. The notices of scientific books and notes on progress in science are of the usual character. The number is altogether a very good one.

THE MINERAL RESOURCES OF NEW MEXICO.

Of the future of New Mexico the most favourable opinions have long been entertained, not only in the United States but by those in this country whose relations with the metallurgical interests of America enable them to form reliable conclusions. In their course through the north-western and western territories the Rocky Mountains form an almost continuous chain of great altitude; they follow a general north-western and south-eastern course through Montana, Wyoming, and a small part of Colorado, and then turning to the south enter New Mexico divided into two ranges, the eastern one of which is formed by high lofty peaks and continuous ridges of great height, which terminate abruptly a few miles north of Santa Fé. The western arm consists of many detached mountains of less height, with low passes between them. This branch is called in New Mexico the Sierra Madre, and is the connecting link between the high mountains of the north and the equally lofty Sierra Madre of the Republic of Mexico. In the northern territories the dividing line of waters flowing to the Atlantic and Pacific Oceans follows the highest and most continuous chain of the Rocky Mountains, but in San Luis Park, Southern Colorado, and in New Mexico the lower western range forms the watershed.

The territory here referred to has been systematically and thoroughly examined, and officially reported upon* by Dr. Rossiter W. Raymond, the United States Commissioner of Mining Statistics. The immediate investigations were chiefly conducted by Mr. W. Bruckner, who acknowledged the assistance he derived from Capt. N. S. Davis, Messrs. Bloomfield, Sturberg, J. A. Miller, Charles Keeler, R. B. Willison (United States Mineral Surveyor of New Mexico), Dr. H. Hilger, and Dr. A. Blatchley; so that it is evident that most of the principal authorities upon mineral matters in New Mexico cordially lent their aid, which it may be hoped will be repaid by securing to the territory the outside capital necessary for developing the extraordinary mineral resources which it possesses.

The peculiar formation, already mentioned, of the great mountain chain in New Mexico has been especially noticed by Dr. Raymond, who remarks that its inconsiderable height, compared with that of its continuations to the north and south, and the great number of still lower passes, undoubtedly point out the territory as the most natural thoroughfare between the East and West, especially so in these southern latitudes the absence of deep snows in the winter presents an additional advantage for railroad lines. The recommendations which such a country would offer to miners is obvious; for, although the commercial prosperity of a district cannot add anything to the produce of the ore which its mines yield, the importance of facilities for constant communication with the mines, and for the economic transport of minerals and materials to and from them, is so great that it often permits of poor mines being profitably wrought, and always makes rich mines immensely more remunerative. Judging from Dr. Raymond's report, it will be long before poor mines receive much attention in New Mexico, since the rich ones will suffice to employ all the capital and labour likely to be available in the territory for many generations; and, as New Mexico enjoys a mild and very healthy climate, the sky being as clear as that of Italy, and the air transparent and pure, there would seem to be nothing to prevent its becoming a great mining country.

With regard to the geology of New Mexico, it appears that most of the mountain ranges are composed mainly of syenitic rocks, which during their upheaval broke through palaeozoic sandstones and carboniferous limestones, the latter being found generally in the flanks of the ridges, but sometimes also on their top. Both the syenites and carboniferous limestones are traversed by mineral lodes. Between and surrounding these mountains is the high plateau of New Mexico, almost level, and mainly underlain by tertiary and lower cretaceous rocks. The sandstone forms frequently table mountains (mesas), and contains in many localities beds of lignite and bituminous coal 2 to 5 ft. thick, alternating with layers of iron ore, fire-clay, and shales. The latter are frequently filled with large fossil leaves. Wherever eruptions and overflows of porphyry have acted upon the formations containing coal the latter has been completely metamorphosed into a beautiful anthracite of excellent quality. This anthracite is proved to be of the same age as the lignites by the fossils contained in the shales overlying both in the same succession. Variegated marls and beds of gypsum are exposed in many localities on this plateau.

Another characteristic feature of the geology of New Mexico are the extensive layers of lava spread in several localities on top of the sandstone strata. West of the Rio Grande del Norte, which traverses New Mexico from north to south, the same formations are met with as in the eastern part of the territory. The principal mountains here are the San Juan mountains, between the Conejos and Chama rivers, affluents of the Rio Grande and Rio Blanco, one of the tributaries of the San Juan, an affluent of the Rio Colorado of Arizona; further south is the Sierra Madre proper, which consists of several isolated mountain chains, with low passes between them. Zuni Pass and Navajo Pass are the most prominent. The projected line of the Kansas Pacific Railroad passes through the latter at an altitude of 7177 ft. above the sea. From Zuni Pass the Sierra Madre extends in a south-eastern direction toward the Rio Grande del Norte. Here the Madalena Mountains are situated. Another chain passes thence to the west, culminating in the Sierra Blanco, near the boundary line in Arizona territory. Still further south the Pinos Altos and the unapproachable Burros Mountains interrupt the monotony of the tertiary plains. Between the Rio Puerco and Rio Grande, west of Santa Fé, are the Jemez, and still further west the Nacimiento Mountains: north of them, those of Tierra Amarilla and Abiquiu. All of them are known to be filled with minerals, but in most of them prospecting has not been carried on sufficiently to permit of details being given.

The Moreno Gold Fields, in the last year reported upon, yielded 100,000l. worth of gold, no silver being produced during the year, except the small quantity which occurred alloyed with gold. Although there are rich silver mines in the territory which had been worked by the Spaniards and Mexicans during the past centuries, all of them lie idle at present for reasons which will be elsewhere explained. The increase over the gold product of the previous year is mainly due to the discovery of the new mines on the headwaters of the Cimarron river, a branch of the Canadian (not the so called dry Cimarron, which empties directly into the Arkansas). The three principal mining districts organised in this region are—the Ute Creek district on the east side, Willow Creek district on the south side, and Elizabethtown district on the west side of Baldy Mountain. The Aztec mine has proved very rich, and the Big Jack, or Montezuma lode, lately discovered by a miner called Big Jack, within half a mile of the Aztec mill, is reported even richer than the Aztec. Mr. L. B. Maxwell, the owner of the grant, is the principal shareholder in this claim, which is 3000 feet long. The lode has been traced for a mile, and for its development he has put up a 30-stamps mill, as well as sinking shafts and driving levels. Two test-runs at the Aztec mill have given a result of \$75 per ton, and the balance of the ore is expected to yield fully as high; this discovery has been called the best lode in America. Dr. Raymond remarks that it should be mentioned that bullion shipped from New Mexico and Wyoming to Denver banking houses, for assay at the mint is generally credited to the Colorado territory. At the gold diggings on Red River, the depth of the bed rock has been ascertained to be very considerable. The valley is one of the most beautiful in New Mexico: meadows covered with flowers of all colors, a clear cold stream of water full of trout, and sombre mountain sides covered with a thick growth of pine, remind the visitor forcibly of the mountain scenery of the Thuringian forest.

The minerals represented in the Pinos Altos region comprise almost all the ores containing the most valuable metals, the most prominent of which are gold, silver, copper, lead, and iron. In 1866, Messrs. Virgil Mastin, Jones, Reynolds, Griggs, and Amberg organ-

ised the Pinos Altos Mining Company, under a charter granted by the Legislature of New Mexico, and such has since been the progress that now 213 quartz lodes are recorded in Pinos Altos and 57 in Central City district. Ores from the Pinos Altos district may be easily mistaken for Colorado ores; they are composed of the same decomposed iron-stained quartz near the surface, and contain, like the Central City ores, free gold, sulphurets of iron and copper, auriferous and argentiferous galena, and zinc-blende lower down. The Montezuma ledge carries \$724 of silver per ton, and the Rafael \$653, the ores in both cases being argentiferous galena. The Arizona ledge, decomposed quartz, carries \$204 gold; the Atlantic, \$931 to \$276; the Langston, in a vein 2½ in. wide, and 30 ft. from surface, \$745; the Pacific, \$264; and the Aztec, 373. In the Central City district the most prominent mines are the Hanover, the Santa Rita, and the San José Copper Mines. The Hanover is held by men who, not being engaged in mining, hesitate to invest the small sum of \$50,000 necessary to set it at work. The Santa Rita Mines are a few miles south of the Hanover, and are well known to Englishmen as being formerly the property of Don Francisco de Alquea and Robert McKnight, and previous to the invasion of the country, in 1862, was most profitably worked. The ores are principally red oxide and carbonate of copper, which are at present smelted in a small Mexican low furnace. It is highly probable that an abundance of good copper ore can be found, not alone along the entire distance between the Hanover and Santa Rita Mines, but also in some of the parallel ridges.

The placer mines near the towns of Real de Dolores and Real del Tuerro are considered the richest in the territory of New Mexico. Thousands of Mexican miners have been employed here in former times washing gold in the most primitive manner, and even at the present time it pays some Mexicans to transport the gravels on donkeys to the nearest creek, and wash out the gold. In this crude manner they have taken out millions of dollars worth of gold. When the United States took possession of New Mexico most of the Mexican miners left for Chihuahua, a few only remained, and have subsisted by gold washing ever since. In the Cunningham, the Ortiz, the Brehm, the Hutchinson, the Brown, and the Humboldt indications of placer gold are very general, and Dr. Raymond believes that with the introduction of hydraulics this interest will become a very prominent one in the future. The Sierra Blanca mining district, recently discovered and organised, embraces the Sierras Blanca, Carrizo, Patos, and Jicarilla; it is between 300 and 400 square miles in extent. The Sierra Blanca lode yields between \$30 and \$40 to the ton. The principal silver-bearing localities are the Organ Mountains, the Cerrillos, the Sandia Mountain, the Madalena Mountains, the Pinos Altos, and the Taos Mountains.

The occurrence of anthracite coal in workable beds near the gold and silver districts is of such importance that Dr. Raymond devotes the concluding chapter of his report on New Mexico to a detailed description of the anthracite mines at the Old Placer Mountains. The deposit has been opened upon in two distinct localities, and follows the dip of the bed for 35 ft. The section shows—Carbonaceous shales, 1 ft.; anthracite, 5 ft.; carbonaceous shales, 4 ft.; indurated clay, 4 ft.; fossiliferous sandstone, 25 ft.; massive sandstone, 100 ft. In the second locality the anthracite was 4 ft. thick, and the shale from 3 ft. to 4 ft. About 280 tons of coal have been taken from this mine; it all shows the qualities of a true anthracite, containing 87.5 per cent. of fixed carbon, and when burning shows only the short blue flame of carbonic oxide. Fire-clay of excellent quality, and valuable beds of iron ore, occur in the territory, so that Dr. Raymond appears well justified for concluding that "sooner or later it will be known that New Mexico need not shrink from a comparison with her sister territories; none of them surpass her in natural resources and riches, and many of them stand below her in the scale."

LEAD ORES.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
June 23	Green Hurth.	60	13 8 0	Looke, Blackett, & Co.
July	5-Minera Union	12	14 3 0	Walker, Parker, & Co.
13	Rookhope.	35	12 17 0	London Lead Company.
	Plynnlimon	40	13 12 0	Sims, Willys, & Co.
	Fedw	15	13 1 0	Walker, Parker, & Co.
16	Foxdale.	65	14 7 6	Cornish Silver-lead Co.
	Green Hurth.	48	13 8 0	Looke, Blackett, & Co.
15	Old Treburgett.	12	28 7 6	Sims, Willys, & Co.
	ditto	6	15 9 6	ditto
18	Tankerville.	100	14 7 6	Walker, Parker, & Co.
	Roman Gravels.	150	14 7 6	ditto
	Penneyer.	75	14 5 0	Burry Port Company.
19	South Darren	22	19 2 6	Trefry's Estate.

BLEND E.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
July 13	Fedw	20	£ 4 17 0	Dillwyn and Co.
	Caldbeck Fells	29 ½	3 1 6	Tindale Speiter Co.
18	West Tankerville.	40	5 8 6	Richardson and Co.
	Bog	70	5 16 0	Dillwyn and Co.

BLACK TIN.				
Date.	Mines.	Tons c. q. lb.	Price p. ton.	Amount. Purchasers.
July 11	Pedin-an-drea	7 2 2 24	£92 2 6	£657 7 6—Bissoe.
13	So. Condurrow.	4 2 3 26	89 0 0	369 5 6—
17	Gt. Wheal Vor.	22 0 3 5	—	2082 19 8—

COPPER ORES.					
Sampled July 3, and sold at the Royal Hotel, Truro, July 12.					
Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols.	109	£22 12 0	Marke Valley	51	£3 3 0
ditto	98	2 0 0	ditto	45	4 14 0
ditto	92	17 6	Brookwood	20	4 5 6
ditto	90	1 19 0	ditto	60	3 19 0
ditto	87	2 5 0	ditto	55	4 7 0
ditto	86	1 19 6	ditto	51	8 18 0
ditto	84	2 0 6	ditto	53	4 8 6
ditto	83	1 18 0	ditto	50	3 18 6
ditto	79	7 2 0	ditto	43	5 5 6
ditto	76	6 14 6	ditto	30	15 16 6
ditto	65	6 4 0	Hington Down	105	3 8 6
ditto	67	2 2 6	ditto	92	4 7 6
ditto	66	10 5 0	ditto	46	6 18 0
ditto	63	1 17 6	ditto	31	9 1 6
ditto	60	3 12 6	ditto	19	0 19 0
ditto	56	2 5 0	ditto	73	4 0 0
ditto	55	2 5 0	Gunnislake (Clitterts.)	54	6 10 0
ditto	37	2 17 0	ditto	50	4 17 0
ditto	29	3 18 6	ditto	55	6 6 6
South Caradon	90	7 16 6	ditto	46	6 13 6
ditto	80	5 10 6	ditto	24	2 3 0
ditto	72	12 15 6	Wheal Friendship	81	1 17 0
ditto	66	14 3 6	ditto	63	7 1 0
ditto	64	6 2 6	West Caradon	70	5 14 0
ditto	47	7 14 6	ditto	60	2 16 0
Marke Valley	96	4 3 6	Wheal Russell	110	2 11 0
ditto	75	6 6 6	Prince of Wales	74	7 1 0
	60	4 13 0	ditto	25	1 6 0

TOTAL PRODUCE.		
Average standard	£130 11 0	Average produce
		£4 16 0
Average price per ton	3778	Quantity of fine copper 218 tons 15 cwts.
Amount of money	£18,167 14 0	

LAST SALE.—Average standard £126 1 0 | Average produce 7

Standard of corresponding sale last month, £13

is worth 6/- per fathom; more lode standing in the north. No. 1 stope, in the back of the 20 west level, to four men, at 3/- 10s. per fathom; worth 12/- per fathom. No. 2 ditto to four men, at 3/- 10s. per fathom; worth 11/- per fathom. The 20 west to two men, at 9/- per fathom; worth 8/- per fathom. The stope in the back of this level to four men, at 3/- 10s. per fathom; worth 7/- per fathom. The stope in the back of the 10 east to two men, at 3/- 10s. per fathom; worth 7/- per fathom. All the filling and landing to two men, at 8/-, the taker to pay all costs. Our last sale realised 472/- 10s. 11d.

CALDBECK FELLS.—P. Hawke, R. Trevarthen, T. Lamb, July 9: We obtain occasionally from the north lode in the 10 west, beyond Moffat's winze at junction shaft, rich stones of lead and copper ore. We would add that we are fast nearing the large shoot of ore gone down in the level above—the deep adit; this end is being driven by four men. The prospect at present east in the 10, on the south lode at junction shaft, is such as to place the development of the mine below the deepest a certain success. We obtain therefrom beautiful green oxide, yellow, and horse-flesh copper ore of rich quality; worth for the latter fully 25/- per fathom. We shall cross-cut the lead-bearing part of this lode quickly, when we expect this portion of the south lode, which is the one in question, equally valuable for lead; we have yet but two men engaged at this point. We have resumed the end south east in the 20, at junction shaft, to the junction with the caunter and south lodes, but there has not been sufficient done here to refer to anything new; we have just two men engaged at this point. We continue the cross-cut from the north lode in the deep adit by junction shaft by two men to the parallel lodes. The south lode east in the 50, at Crown Point, is at present unproductive, this end is driven by two men. The end in the 70 east, on the south lode, at Crown Point, contains a slight admixture of coloured ores, but the yield of lead is not sufficient to value; worked also by two men. We observe no change to particularise in the tribute department. We hope to be able to report in our next communication of an increase of hands for greater dispatch throughout the several points now in operation; and likewise to resume operations in places which have been idle for a long time for want of men.

CAPE CORNWALL.—Richard Pryor, John Davey, July 16: In the 100 fathom level cross-cut, driving north of engine-shaft, there are some small branches of mundic crossing the end, from which, with the present appearance of ground, and the increased quantity of water, we are of the opinion that the lode cannot be far distant. No other change throughout the mine. Saturday next being our pay and settling, a full report shall be sent you.

CASHWELL.—John Pearl, July 13: The vein in the drift going east below the Bear Lime-stone is looking a little better; there is more spar, and is easier to work. The stopes Nos. 1 and 2, in the above stratum, are about the same as last reported. The stopes on the north vein, in the same stratum, is improving, but is still very hard. The stopes in the Slaty Hazle, is about the same; if anything, rather easier to work. At Dawkes' the vein has been cut, and a few pieces of ore met with, but, as the vein has not yet been cut through, I cannot say much about it: 40 tons of ore have been sampled for sale.

July 16: The 40 tons mentioned above have been sold to-day to the Washington Chemical Company, at 13/- 12s. 6d. per ton.

CASTLE AN DINAS.—Thos. Parkyn, July 16: I was at this mine to-day, and have to congratulate you on your future prospects. There cannot be a doubt, that when you reach the 25 fm. level you will obtain great profits. The works are proceeding very satisfactorily, and steady progress is being made towards the mine's development. A dividend of 10 per cent. is in itself enough to recommend it.

CASTLE GATE.—Thomas Parkyn, July 16: In handing you a general report of this mine it will be necessary for me to mention all the work done, and its object, &c. In the first we cleared up the old shallow adit, commencing at the north part of the sett, and we cleared this level south for a considerable distance, and also cleared up several adit shafts; the deepest one was 7 fms. below the surface. In clearing this adit level we found five lodes, from 2 to 4 ft. wide, that had been worked on as deep as the adit, and we also found some rich stones of tin left by the old miners, and in the bottom of the adit I find the lodes to be going below here for tin. The lodes are taking their course near east and west, and the adit north and south. You will see that the adit crosses the lodes nearly at right angles. These lodes are very promising, and in my opinion will be found rich for tin in depth. We then went south a considerable distance, and opened a lode called Duck's Pool lode. This lode is from 7 to 8 ft. wide, and in some openings we have good work for tin, and at other parts not so rich; but, taking into consideration that it is so shallow from surface (not more than 2 fms.), I consider the prospects are very good on this lode. We have opened a lode called Dower's lode, this also being so shallow that I can hardly give a correct idea of its future value; but, nevertheless, we have found some very good stones of tin on the back of this lode, which is about 2 ft. wide. We have opened several other lodes containing tin in paying quantities. I might say that the sett contains 20 lodes. The mine is in a good position; the lodes are all embedded in killas, and near to the granite, such a position being sought after by tin miners, as it is generally known that large deposits of tin are found in similar positions. Looking at the mine generally, you have a valuable property. I am of an opinion that these lodes will be found rich for tin in depth, and the engine and stamps should be erected in such a position as would command all these lodes with an easy access. I have fixed on a place in my own mind for this. You have good roads for bringing materials, &c., and for carrying away your tin.

CATHEDRAL.—J. Michell, July 18: It affords me a great deal of pleasure to inform you that we have forked the water, and shall at once resume the sinking of Colenso's engine shaft on the course of the lode, which is composed of a rich gossan and copper ore, and I believe in a few fathoms sinking will be rich for the latter.

CEFN CONSOLS.—E. Evans, July 18: The engine had to be stopped on Monday

to enable us to repair the connecting-rod which had been broken (20 hours). We tapped the boiler and cleaned it at the same time. The weather is more favourable now for progress, but I am sorry to say we have made but little this week, as the water is only 12 in. below the 14. We are in good working order, and I hope to be able now to get the water out.

CHIVERTON MOOR.—G. E. Tremayne, John Luxon, July 16: At the 105 west we last week reported that from our dialling the main part of the lode we anticipated was hoisted by a slide; we commenced a cross-cut in this direction, and after driving 6 feet intersected it; it is 2½ feet wide, composed of quartz, mundic, and lead, and of the latter will produce 7 cwt. of lead per fathom, with every indication of an early improvement. The rise in the back of this level still continues to look well, lode worth 20 cwt. of lead per fathom. There are two stopes in the back of this level, which are worth respectively, No. 1, 20 cwt., No. 2, 18 cwt. of lead per fathom. In the cross-cut driving south of the 65, at Retalheli's shaft, we have a little increase of water, the ground is also easier for driving, which leads us to believe that we are getting near the new lode seen at the 40 fm. level cross-cut, south of Tregonnug's shaft. No change of importance in any other part of the mine.

CHENVER AND WHEAL ABRAHAM UNITED.—Wm. Kitto, July 15: The 80-end, east of St. George's shaft, on the south lode, is improved in the last week, and will now produce 2½ tons of copper ore per fathom, worth 6/- per ton. There is no change in any other of our tutwork operations. It being our setting-day next Saturday, a full report shall be sent you next week. We shall sample to-morrow about 270 tons of copper ore of average quality.

DEERPARK.—J. Bucknell, July 18: The shaft is now down 23½ fathoms. The late heavy rains have been very much against us, but the weather has been much finer the last few days, and we have less water in the shaft. The deep adit is now driven 53½ fms.: the lode has greatly improved since my last report, and we have not had a better lode for tin than we have at present. We have driven the No. 5 adit 6' t. 6" in, through the lode, and have not yet reached the south wall. As far as seen the lode is composed of mundic, gossan, and peach. We have tried a sample, and it produced 12 lbs. of tin to the ton of stuff. We have opened on the back of our deep adit lode 150 fms. west of the shaft, and tried a sample of it, which produced over 2 qrs. of tin to the ton; this will pay well for working, and I would advise a small trial shaft should be sunk upon it. We hope in another week to complete the wheel pit, and get in the axle of the wheel. The ground is nearly cleared out for one department of the floors, and we are making good progress with the others. As soon as we can commence dressing tin we shall be able to make good returns in a short time. We have 51 men employed on the mine.

ESTATE BASSET.—John Lean, July 18: In the 80 cross-cut, west of sump shaft, driving north, we have intersected a branch 9 in. wide, producing stones of copper ore. The cross-cut is being continued north. There is no change to report on elsewhere. We sold, on May 16, 47 tons of flintstone, for 28/- 16s. 6d., and on July 11, 60 tons of tinstone, for 48/- 13s. 6d. The walls of the house for the stamping engine are up. The stack will be completed to-morrow.

EAST BOSCASTWELL.—W. Eddy, July 10: The following is our setting for four weeks ending Aug. 3.—A rise in the back of the 12, east of engine-shaft, at 4/- per fathom, one man. The stopes in the back of the 25, west of engine-shaft, at 35s. per fathom, two men, the month. The stopes in the back of the 25, west of engine-shaft, at 40s. per fathom, one man, the month. Thesstopes in the back of the 40, east and west of winze, at 35s. per fathom, four men, the month. The stopes in the back of the 40, west of engine-shaft, at 40s. per fathom, two men, the month. The double skip-road with ladder road is completed to the 50; we are now securing the skip shaft below this level. The tip-plats at the 40 are completed; these plats will contain over 2000 sacks of stuff. We are also laying down tram road at this level, and have sufficient stuff here to keep the 32 heads stamping a month. The plat at the 70 will be completed this week. On clearing the 110 west we find this level is driven over 50 fms., and there is a capital lode, wide in the end. The engineers are making good progress, and expect to be ready to start the engine in a fortnight.

—Wm. Eddy, July 17: In the engine-shaft the second drawing-lift is dropped to the 120. The skip-shaft we are enlarging at the 60. The tip plat at the 70 is completed. The rise in back of the 12 is communicated with the winze below the adit level. We can now stop this ground to an advantage. The adit level we are clearing and securing. On the dressing-floors we are erecting the patent boulders and other necessary work.

EAST LLANGYNOG.—Capt. Pascoe, July 13: I am pleased to say that the mine continues to open out well. The winze in the No. 1 level has a very promising appearance, and is composed of gossan, spar, and carbonate of lime. I am expecting a course of ore in this end every day. The slope over No. 1 is worth about 26/- per fathom. The No. 2, west of winze, is worth for lead about 28/- per fathom. The slope over No. 2 is worth for lead about 40/- per fathom. I have put on men to drive through the lode east of the winze in No. 3, which is now worth about 10/- per fathom. The end of No. 3 level is being driven, and is worth for lead about 24/- per fathom; this is a continuation of the course of ore on which we drove for 20 fms. on the footwall. I have put four men to stop the back east of the winze in No. 3; the east of this slope is worth for lead about 15/- per fathom. The slope west of winze is worth about 40/- per fathom. I have put two men to drive west in No. 4 on middle lode, which is about 2 ft. wide, and worth about 10/- per fathom; this end seems to be improving every day. The end driving west on north lode has a very kindly appearance, and contains rich strings of lead, mixed with spar, in almost every point. We have just sent off the 50 tons of ore sold on the 6th inst., from the station, having had to wait for trucks.

EAST RHYDTALOG.—J. Dunkin, July 17: In the 15 east, on Rhydtalog engine-lode, the lode is 3 ft. wide, composed of clay slate, spar, and good ribs of lead ore: this is looking more promising than I have seen it before. In the deep level, on new south lode, the lode is 4 ft. wide, composed of soft spar, clay-slate, and mixed with lead ore. In the deep level, on new lode, the lode is 5 ft. wide, composed of clay-slate, spar, and mixed throughout with lead ore; this lode is improving much in appearance as we advance.

EAST SETON.—W. Pascoe, H. Arthur, July 18: The 48 fm. level, west of cartwright shaft, lode from 3 to 4 feet wide, kindly in appearance, and worth 1½ ton of good ore per fathom: we have about 2 fms. further to drive to get under the sink below the 34 west of shaft. The sink below the 34 fm. level, west of shaft, lode 5 feet wide, worth 25/- per fm. There is no particular alteration to notice in any part of the mine since last reported on.

EAST TRELEIGH WOOD.—Leonard Tregay, July 18: We have four men now working on the lode west of the footway. The part of the lode carried by the old men is about 3 ft. wide, but they left some of the lode standing. How wide the lode is we cannot say, as we have not yet reached the footwall. We expect to be able to haul some good quality tin-stuff from there through the boundary shaft next week. We have cleared the western shaft 13 fms., and collapsed it up. The shaft is in good condition, and we expect to get down upon the large tin lode early next week.

EAST VAN.—W. Williams, July 15: The engine shaft is down 23½ fms. below the adit. We have 9 ft. more to sink to the 25, and shall have about 9 ft. to sink below to give us room. When we have done this and divided and cased the shaft to the bottom, which will be in about a month, we shall commence crossing north to intersect the lode: there will be about 10 fms. to drive. We have resumed the driving of the adit level westward towards Van to-day, having connected a fan to the engine to force ventilation into the mine. We shall be able to push forward the level a good distance further without rising, but when I can get a pair of men it shall be resumed and continued to surface. I am anxious to drive this level forward, as there is now a good chance of a discovery.

EAST WHEAL GRENVILLE.—E. Hosking, W. Bennetts, July 13: The lode in the 55 has improved; now 2½ ft. wide, and worth 1½ to 2 tons of copper ore per fathom. Other parts of the mine just the same as last reported.

EAST WHEAL LOVELL.—Richard Quenrell, July 17: The lode in the winze below the 80 is not quite so large as it has been. It still contains a rich branch of tin, and from present appearances I think it will again improve. We shall resume the driving of the 90 west in a few days, where there is a good lode.

EXCELSIOR.—G. Rickard, June 17: Since last report the ground in the south adit level cross-cut, driving towards the Holmhouse lode, has considerably improved, and good progress is being made. The water is much increased in the 6 ft. driving, showing that the lode is not far off. No other change to advise you of.

FLORENCE (Tin).—P. Floyd, John Searie, July 17: Eliza's Engine-Shaft: In the 26, driving west of shaft, the lode is from 6 to 7 feet wide, and worth 28/- per fathom; driving by eight men, at 10/- per fathom. In the winze sinking below the 20, west of shaft, lode 5 feet wide, and worth 20/- per fathom; sinking by six men, at 7/- per fathom; by the end of this month we expect to communicate to the 26 fm. level below, when we shall be in a position to stop both east and west on good tin ground that will pay well for stamping. The lode in the winze sinking below the 20, or Fisher's lode, is 2 feet wide, and worth 15/- per fathom; sinking by four men, 4/- 10s. per fathom. In the west end of the same level the lode is 4 ft. wide, and worth 33/- per fathom; driving by four men, at 8/- per fathom. The lode in the deep adit end, driving west of shaft, is 2½ ft. wide, and worth 6/- per fathom; driving by four men, at 9/- per fathom. Walter's Engine-Shaft: The lode in the 30 fm. level driving east is 3 feet wide, and worth 7/- per fathom; driving by six men, at 3/- per fathom; by extending this end about 2 fathoms further east we shall intersect Fisher's lode, where we expect to meet with the same run of tin ground that was seen in the 20 fm. level above, where it was worth fully 25/- per fathom. We have set the shaftmen to cut flat for the sum of 10/-, and when done we shall at once resume sinking the same with all vigour below the 30 fm. level. The masons have commenced to build the engine-house on Walter's shaft. We have set the burning-house stads to build, and expect the same to be completed in about three weeks from this time.

FORTESQUE (Tin).—T. Phillips, July 16: The Hardhead lode, referred to in my last, is still rich for tin. We shall commence sinking the engine-shaft in the course of a few days. The north engine-shaft will be sunk on the course of the Hardhead lode at a point where it is very productive for tin. The south engine-shaft on the course of Hosken's lode, where it is about 6 ft. wide, is worth for tin 30/- per fathom; the shaft can be sunk for 15/- per fathom. We have found a good quarry of building stone.

FRANK MILLS.—J. Cornish, F. Cornish, N. Addems, July 17: We have not been able to resume the driving of the 130 north from want of efficient trammers and miners. The ground in the 115 north is without any particular change, but as we advance we hope it will become more favourable for progress. The lode in the 100 north has not yet improved, being of the same character as last reported: not much progress, however, has been made, the men being principally engaged in laying down tramroad, taking down corners, and repairing air-sollars, &c. In the 84 north we have cut a winze flat at the most convenient place, and commenced a winze, which is sunk about 6 or 7 ft.: it contains at present a little ore, and when we get on the main part of the lode we expect to have it much more productive. In the 30, north from engine-shaft, on the east lode, some good saving work has been raised, but the lode is now disordered again, just as it was in the level below (the 45) before reaching the shoot of ore; the ground is favourable, and we hope soon to reach the more productive ground. The air-machine put in to ventilate this end answers well. We have no particular change in any of our stopes, or any other tunneling bargain. The pitches at present in operation are also just the same.

GAWTON COPPER.—George Rowe, George Rowe, jun., July 13: The lode in the 105, east of King's engine-shaft, is without change since last reported on, being worth 2 tons of ore per fathom. The lode in the stopes in back of the 105 is worth 5 tons of ore per fathom. The lode in the 95, east of said shaft, is yielding good stones of ore. The lode in the stopes in the bottom of the 95 is worth 4 tons of ore per fathom. The lode in the rise in back of the 95 is worth 8 tons of ore per fathom. We calculate to complete the communication of the 70 winze to the 82 to-day, and commence stopping upon the lode, where it is worth 8 tons of ore per fathom. The lode in the 70 east is without change in character during the past week. The lode in the stopes in the bottom of the 70, both east and west of Williams's winze, is worth 5 tons of ore per fathom. We are progressing very satisfactorily towards our next sampling, which we calculate will be over 300 tons of excellent quality.

GEM.—R. Unsworth, July 10: In the 20, east of engine-shaft, the lode is 15/- ft. wide, producing stamping work. In the stopes east of winze, the lode is full 6 ft. wide, worth from 10/- to 15/- per fathom. In the stopes west of winze, lode 2 feet wide, producing good stamping work. No. 1 stope, back of deep adit level, lode 2 ft. wide, worth full 15/- per fm. No. 2 stope, lode 15/- ft. wide, worth full 10/- per fm. We are busily engaged in fixing the bottom lift of pumps, after that we shall commence sinking with all speed. Since this party has had possession of the mine, we have put in two new bobbins, skip road in shaft, new dressing floors, new spelling floors, and about 50 fms. of tramway. We have now about 18 or 20 cwt. of tin for the market, and about 100 tons of tin stuff broken at the 20 fm. level, which we are drawing from at present. All our machinery is in good order and working well.

GLAMORGANSHIRE.—W. Foss, July 17: The shaftmen have held to some old workings. The eastern end of engine-shaft is letting out water freely. I should not think there was any communication between these old workings and the eastern winze in the bottom of the 10 fm. level, which continues full of water at present. I am pushing on the sinking with all possible speed. There is no change to notice in the lode since my last.

GORSEDD AND CELYN LEVEL.—July 18: We have re-set the adit level, driving as usual, to eight men, at 5/- per yard, and have been delayed much by the late heavy floods, but the fine weather is putting us all right. The driving out of Hughe's shaft is looking very well, re-set to four men, at 3/- 10s. per yard, and I think we shall have a very great improvement here before many more yards driving. We have cleared a communication from East Merlin's shaft to the Gor-sedd workings, at a depth of 40 yards.

GREAT RETALLACK.—J. Harris, July 13: The lode in the rise above the adit is of much the same character as for some time past, it being about 15 in. wide, of flocks, spar, and mundic, mixed with killas. The men have tried several times during the week to go down to set the water in the old engine-shaft, but could not go below the downright on account of the air.

GREAT ROCK.—J. Kemp, July 18: The lode in the driving end of Hughe's engine, is looking very well indeed, and also the stopes behind this end is looking well, each of them to day are worth fully 1 ton of lead per fathom; we have had nothing in the mine like it for a very long time, and I am doing all I can here to follow this up. The rise on No. 1 lode is producing some lumps of lead; I am sorry we shall be obliged to clear the water out from the shaft in the wood before we shall be able to effect a communication. We are very short of men indeed, it is impossible to obtain men to proceed with anything like regularity.

GREAT SNAEFELL.—H. James, July 15: The character of the ground in the north adit level is more favourable for the production of ore; the end is harder, and, judging from appearances, I think the east and west lode cannot be far before the forebreast. The 25 end is progressing favourably; no particular change in the lode to report. In the 40 stopes and driving the lode continues to look very well, being from 1 to 2 ft. wide, producing good lead and blende. The lode in the 60 end north is without any change to notice; in the stopes in the roof of this level the lode is from 1 ft. to 2 ft. wide, producing some good blende, mixed with lead, and is daily improving. In the 60 south stopes the lode is from 1 ft. to 2 ft. wide, and continues to produce good stuff. The same may be said for the 20 fms. stopes. The 74 end north occasionally produces good stones of lead. We have a rib of blende mixed with lead in the lying cheek on wall, and also on the hanging-wall we have a rib of ore. The lode from one wall to the other is 12 ft. wide, but a good deal of it is composed of rock mixed with quartz. As we advance north the rock will, I think, become less, and the lode more productive for ore.

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ing tin mines, and judging from what has been done in the bottom of the 30—the good lode gone down immediately west of the cross-course—I think an improvement will soon take place in this end. In the 30 cross-cut, and about 80 fathoms north of the south tin lode, a rich copper branch was discovered; a level has been driven on it east and west, and laid open some ore ground, which can be worked at a profit as soon as the level is ventilated. Since the cutting of the copper lode the cross-cut has been driven north 21 fathoms, and cut the north tin lode. This I consider the best feature yet seen in the mine: the lode is 1 ft. wide, in a beautiful stratum of white killas, and worth for tin 25/- per fathom. A new shaft is now being sunk from surface for the purpose of drawing through and ventilating that part of the mine. The ground in the shaft is easy for sinking, and I think, independent of cost of pitwork, it can be sunk for about 15/-'. Since the mine was first to work at our 900', have been judiciously spent in erecting machinery (all of which is now in good working order), sinking shafts, extending levels, &c., and I think a little further outlay should now be made for the further development of the mine, and to bring it into a paying state. I think the mine to be one of great promise, and have no doubt that when fully developed it will mark large returns.

NEW WHEAL TOWAN.—Richard Pryor, July 13: The men continue to make good progress in preparing the adit level for the admission of the flat-rods. In the course of another week we hope to set the engine-house to build. No other change worth notice.

NORTH CROFTY.—Joseph Vivian and Son, Wm. Thomas, July 13: We are

busily engaged in cutting plait, &c., in the 220, preparatory to sinking the engine-shaft below this level. In the 220, west of Petherick's shaft, the lode is 4 ft. wide, composed of hard capel, mundic, and tin. In the 208 west the lode is 6 ft. wide, worth 10/- per fathom for tin and copper ore. In the 196 west the lode is 3 ft. wide, producing saving work for tin. In the 183, east of Praed's shaft, the lode is composed principally of flockan. Our stopes are producing their usual quantities of tin-tin.

NORTH POOL.—July 18: Ballarat Shaft: The lode is 5 ft. wide, and the part which is carrying copper having an increased width. In the 70 east the lode is of

precisely the same character as that at Ballarat shaft.

NORTH SNAILBEACH.—T. Davis, July 18: The lode in the No. 1 adit is looking very much better; it is now about 15 in. wide, carrying good branches of lead, and improving daily. I believe we shall soon get a good course of lead. I broke yesterday some fine stones of lead near the footwall. We are progressing favourably with the cross-cut in the 13 fm. level, and finding branches of lead as we go on. I expect near the hanging wall we shall meet with something good. The lode at this point is over 12 ft. wide, and we intend to drive a cross-cut through the lode. We have about 100 tons of barytes ready for the market. Other operations at the mine are progressing favourably. I have laid the rails in the deep adit, and intend opening the air-shaft to ventilate the same. This adit will drain the mine to the depth of 63 fms., and through which we can train our staff to the dressing-floors, thereby saving drawing and pumping power, and shall still be gaining backs as we extend our operations on the course of the lodes.

NORTH TANKERVILLE.—J. W. Powning, July 13: Since you were last informed, the ground in the end, driving east from engine shaft, has somewhat improved, and better progress made. The lode in the present end has still a promising appearance, and lets out water freely. This end is now driven 4 fathom from shaft. We calculate to get out of the greenstone and into the productive or slatey rock, in 6 fms. further driving. Fair progress continues to be made in driving the end west of engine shaft. We still have a cavity in the present end, out of which there comes a considerable quantity of water. The lode in present end is about 6 ft. wide, composed chiefly of lime, spar, barytes, spots of lead, and stone, but less of the latter every foot we advance, consequently the lode looks more settled. I look forward with great interest to the driving here.—**Tributaries' Shaft:** We were obliged to abandon this shaft on Tuesday, in consequence of the present increase of water met with in the last 2 or 3 feet sinking. The lode in the present bottom is about 2 feet wide, composed of carbonate of lime, barytes, clay, and occasional lumps of lead ore, but not sufficient to value.

PARYS MOUNTAIN.—T. Mitchell, July 18: In the 100 east, on the Carrig-y-doll, we are at present cutting north in the lode, and I am pleased to say that we are getting some very good copper ore; we hope soon to be in a position to let this ground for stamping. The 90 west, on S. B. course, continues to yield 2½ ton of good ore per fathom. The 90 cross-cut north is getting into stiffer ground, with more water issuing from the joints. The stopes in the 90 are yielding their usual quantity of ore. The new stopes in the 80 are looking well, and yielding ore of a better quality. The 65 cross-cut south is getting into the Carrig-y-doll lode; the ground looks kindly, and we hope soon to catch the run of ore ground which we now have in the 80. The 65 west, on S. B. course, is yielding about 1½ ton of ore per fathom. The 65 east, on the same lode, is producing some nice lumps of copper, and looks promising. All other places continue much the same as for some time past. We have weighed off Nos. 1 and 2 parcels of copper ore, which came up fully to the computed weight. The precipitate will be weighed in course of a day or so.

PEDN-AN-DREA UNITED.—Wm. Tregay, Wm. Prudeaux, J. Pope, July 13: Samp: The water is now 6 fathoms below the 100, and before proceeding further we have to fix cistern and replace the broken pieces of the main rod, which we are proceeding with as fast as possible.—**Street:** In the 47 east the lode (Skinner's north) is worth 12/- per fathom. In the 47 fm. level winze the lode is worth 12/- per fm.—**Cardozo:** In the 90 east the lode (north) is worth 8/- per fathom. In the 90 west the lode is worth 10/- per fathom. The 90 west rise has been communicated with the 80 west end. In the 80 east the lode (north) is worth 15/- per fathom. In the 80 west the lode is worth 10/- per fathom. In the 70 east the lode is worth 12/- per fathom. In the 60 west the lode is worth 9/- per fathom. In the 60 east the lode is worth 4/- per fathom. In the 60 west the lode is worth 12/- per fathom. In the 55 east the lode is worth 10/- per fathom. In the 55 west the lode is worth 8/- per fathom.—**Pedn-an-drea Fields:** We expect to commence hauling next week from the 30 fm. level. We sold on Thursday at Bissoe, 7 tons 2 cwt. 2 qrs. 24 lbs. of black tin, at 92/- 2s. 6d. per ton, or 65/- 5s. 6d.

PENHALLS.—S. Bennetts, W. Higgins, July 13: The 70 west continues to produce saving work. The slope below this level is worth 15/- per fathom, and the one above 7/- per fathom. The 54 west is worth 8/- per fathom, and the slope above 12/- per fathom. The stopes in the 50 east are respectively worth 10/-, 15/-, and 22/- per fathom. The 50 west is worth 8/- per fathom, and a rise over the level 10/- per fathom. The 40 fm. level cross-cut north, on west cross-course, is apparently getting near the lode, as traces of tinstuff are being intersected. The 48, west of Shop shaft, is worth 8/- per fathom, and the rise over this level 12/- per fathom. Now worth 2 tons of lead per fathom. The level driving west, on Warm Water lode, is producing 1 ton of lead per fathom. The lode in the same level, driving east, is 1½ ft. wide, yielding ½ ton of lead per fathom. In the winze sinking below the 60 lode is worth 3 tons of lead per fathom, 6 ft. long. The lode in the rise, east against No. 1 winze, is producing 2 tons of lead per fathom.—**Gin Shaft:** The 40, driving west, on back vein, is the same in appearance as for some time past, and producing some excellent stones of ore.—**Potter's Pit:** The sinking below the 35 is progressing with all speed; the ground at present is rather hard for progress, but no time will be lost in reaching the 45; the lode yields occasional stones of lead, and is about 1 ft. wide. The cross-cut at the 25 is much easier for progress. The lode in the 25 is much easier for progress, and yielding lead in usual quantities.

PENSTRUTHAL CONSOLS.—J. Kendall, J. Michell, July 18: The ground is favourable for sinking in Highburrow engine-shaft, and the lode in the same is worth for tin 100/- per fathom. The lode in the 10, west of shaft, is worth 20/- per fathom. The lode in the 10, east of shaft, is worth 70/- per fathom. In the adit level, west of shaft, the lode has again improved, and is now worth 10/- per fathom. We have reached the bottom of the old workings east of Highburrow shaft, and samples taken from a portion of the lode gives a value of 40/- per fathom, for 12 ft. long, but a portion of the lode is still standing to the north, which shall be taken down, and particulars given, next week. We are pleased with the promising appearance of the lode, and believe this will prove to be the most valuable point in the mine, and the place to sink the chief engine-shaft, which we shall in future call Greene's engine-shaft. Chy lode, at the adit level, is worth 40/- per fathom. The clearing of the old workings on Blewett's lode is still being prosecuted, and we find we have about 3 ft. more to clear before we reach the bottom.

PLYNMIMMON.—John Paul, July 18: The 24 east of shaft, and the same level west from the winze, also the 12 east, and the cross-cut towards the north lode, are all being driven by the same number of men as reported last week, and each point continues without change worthy of remark. We have four fresh men come on, and have put them to case and divide the shaft from the 24 to the 36, preparatory to driving the latter level west from the shaft. We are expecting others, who have promised to come, as to put on the 36 east, and also the 12 fm. west, on the new lode. The 40 tons of lead ore sold on the 13th inst. realised 13/- 12s. per ton.

PHOENIX (Silver-Lead).—R. Pryor, July 17: In the course of a few days we shall have the engine in complete readiness to commence working, and had the founders fulfilled their promises in the delivery of our castings we should have been at work long before this. The men in the south shaft are making good progress in clearing, but have not yet reached the bottom of the shaft; we expect to do so shortly, when we shall commence sinking the same to the 20 without delay, with the view of communicating with the engine-shaft in order to afford better ventilation where it is much required. There is no other change in the mine worthy of remark.

PRINCE OF WALES.—J. Gifford, F. Phillips, July 18: There is no change calling for special remark since last week. We shall take down the lode in some of the levels this week.

PRINCE ROYAL (St. Agnes).—H. Bennetts: We are opening with all possible dispatch upon Nos. 1 and 2 copper lodes. No. 1 copper lode is 3½ ft. wide, and is about a hole of great promise, being composed of mundic and large stones of copper, with every appearance of a rich lode when developed. No. 2 copper lode is about 2 ft. wide, and of much the same character as No. 1. There is no doubt large quantities of copper will be found at deeper levels. We are pushing on with all possible speed in opening on the tin lodes, and am glad to say they continue to look exceedingly well.

REAPADDAA.—Samuel Cook, July 15: The men since commencing sinking the new shaft, as per last report, have cut through the north and south lodes, and find it to be 6 ft. 6 in. wide, and contains good stones of copper ore, also strong carbonite of copper. The level driving east from the deep adit, on the east and west side, which produced such good stones of ore, we found to be heaved out of its course by a bar of hard ground, but instead of trying to find it again I thought it would be much better to continue the driving in a straight line to cut into the north and south lode as soon as possible. This is now accomplished, and the lode cut through, and found to be the same size and character as seen at the bottom of the shaft. I intend to drive on it till we come under the shaft, and have set a stent of 2 fms. at 5/- per fathom, the men to wheel their own staff. When under the shaft shall put men to rise on the lode at where the best of the lode is, and also put men to cross-cut to the east and west lode, and follow it to its junction with the south and south lode.

REDMOOR.—J. Gifford, July 16: In the 25 west we are still driving by the side of the lode, so as to get under the new shaft as soon as possible, to let down the water. The lode in the level where poked into showed a very kindly appearance, with good stones of black copper ore intermixed; and when it is taken down I think it will be found good.—**New Shaft:** We hope to commence working here to-morrow—that is, if the dry weather continues. The tributaries are working with good spirit, and are getting wages. I intend going to the Trellellan Smelting Works to-morrow with about 23 cwt. of tin.

RHYDTALOG.—James Dunkin, July 17: In the 25, east and west on the new

lode, the lode is 4 ft. wide, of a very promising appearance, composed of clay-slate, spar, and lead ore, and will produce in the east end 15 cwt. of lead ore per fathom, and in the west end 10 cwt. per fathom. The stopes in back of the 15, on the same side, will produce 12 cwt. of lead ore per fathom. We are going on fairly with the dressing.

ROMAN GRAVELS.—A. Waters, July 18: The min's throughout is quite up to the value given in our last reports. We have to day sold 150 tons of lead ore, at 14/- 7s. 6d. per ton.

ROSEWALL HILL AND RANSOM UNITED.—Joshua Daniel, W. Bugelhol, July 17: We have taken down the lode in the flat rod shaft at Goole Pellan's, and find it to be 2 ft. wide, worth for tin 12/- per fathom; this lode is only 10 fathoms from surface. Since our last report we have cut through the new lode discovered in the 100 cross-cut north; this lode is about 15 in. wide, and yielding good saving work for tin—a very promising lode. We are glad to inform you that the 110 is showing signs of improvement: the lode is getting larger as we advance, and producing tin. We have no other change to notice.

ROSE UNITED.—Geo. E. Tremayne, July 17: The shaftmen have completed cutting ground for bearers and cistern at the deep adit level, and are now engaged in taking out the 50-in. engine we purchased at Nangelle for this mine: we are getting on exceedingly well, and hope to get the engine all taken out of the house by the end of this week. We have already removed several portions of the engine to this mine, such as the cylinder, bottom-cover, nozzles, steam-pipes, and gear-work. The whole of the engine will be delivered on this mine by the end of the present month, when we shall at once commence heaving in, and fixing with all possible speed.

SOUTH CARN BREA.—Wm. Rich, J. Knowell, July 15: The lode in the 150, east of engine-shaft, is increasing in size, and letting out more water as we extend. We hope soon to drain the bottom of the 130, where there is a fine course of copper, worth fully 70/- per fathom; this end is being driven by six men. The 140 fathom level west is extended 30 fathoms; the lode carries a little copper, the ground is easier, and the end shows good indications for a speedy improvement. There is a long piece of untried ground west, and if a good discovery should be made in this direction, the lode is standing whole to surface. In the 130 east we intersected a cross-course, which have the lode some 4 fathoms; we have discovered the lode east of the cross-course, and extended beyond it about 6 fathoms; the lode cut through close to the cross-course is over 20 feet wide; the part carried in driving the end yields good stones of tin and spots of copper, and looks likely to soon open out a good productive lode. The 180 fm. level is driven 7 fathoms east of winze, the lode in the end yields low quality limestone. A winze has been sunk below the 108, and holed to the 130 fm. level, which has well ventilated the mine, and opened a good piece of ground for stowing. Two stopes, east of winze, referred to are worth 20/- and 45/- per fathom respectively. The stope west of winze is worth 55/- per fathom. We hope before these stopes are exhausted other discoveries will be made, either in the drivages, or that the bottom of the 130 will be quite dry, which will render available the one ground already discovered. In reviewing operations during the past year, we have done a great deal of new and expensive work at surface and underground, and have stopped 150 fathoms of ground in the back of the 130 and 180 fm. levels. The ends have been driven 99 fathoms 2 feet, and 20 fathoms of winze sunk through. The amount realised by sales of copper and tin is 8893/- 17s. 1d., leaving a profit to the shareholders of over 3000/-.

SOUTH CONDURROW.—J. Vivian and Son, W. Williams, July 17: The 71 has been drained, and we have resumed driving the same with six men. In our next we shall be able to report on the value of the lode. The water is now drained 3½ fms. below the 71. On Saturday next we calculate on having the 82 drained. We have resumed stoning the back in the 71 and 61, and are now keeping 64 heads driving. We have resumed the driving of the 20 east of engine-shaft, on the middle lode, the lode being 15 in. wide, and thinny. We continue to open out profitable tin branches in the shallow drift from Plantation shaft, worth from 6/- to 7/- per fm. We are clearing the 10, east of Fraser's shaft, as quickly as possible. We sold, on the 1st last, 4 tons 2 cwt. 3 qrs. 26 lbs. of black tin, at 87/- per ton, realising 369/- 5s. 6d.

SOUTH DARREN.—J. Boundy, W. H. Boundy, July 15: The western engine-shaft is now down to the required depth for a 90 fm. level. The shaftmen are at present engaged in preparing drawing-lift for same, and when completed we shall at once commence driving west on the course of the lode with a full pare of men. No lode has been taken down in the end since the last report, consequently there is no change to notice. All the stopes throughout the mine continue just the same as for some time past. Surface operations going on as usual, and machinery working well.

SOUTH MERLYNN.—J. Boundy, W. H. Boundy, July 15: I am pleased to report that every point is looking most favourably. The 100 yard level north is still producing ½ ton of lead per fathom, while the south is improved, and in place of stones of ore the end will produce 6 cwt. of lead per fathom. The stopes continue to yield their usual quantity of ore, and we are advancing well with the dressing. Clean ore in stock for next sale already from 3 to 4 tons.

SOUTH PLYNLIMMON.—John Walters, July 17: The 40, driving west on the course of lode, is extended 11 fms. 2 ft.: the part of the lode carrying is about 3 ft. wide, composed of killas, quartz, mundic, &c., a strong, fine-looking lode, letting out a heavy feed of water; in fact, a more kindly lode I have not seen for a long time, and I shall be much disappointed if it does not lead to something good in a short distance more driving. We have discontinued the driving at the 40 east for the present, and put the men to cross-cut south at the 40, in search of more lode: there is no change at this point. We have also taken the men from the 10 cross-cut north, and put them to open the back of the lode in the western ground, to prove its character.

SOUTH ROMAN GRAVELS.—J. W. Powning, July 18: Shevelfield: The new engine-shaft is being sunk with good speed; present depth 3 fms. 4 ft. We are making fair progress in driving the deep adit cross-cut west towards Roman vein.

SOUTH TOLCARNE.—J. Vivian and Sons, July 18: The engine-shaft has been cut down, timbered, and completed to the 12. We are cutting plat at the deep adit level, west of cross-cut, on the main lode, the size is 3 ft., and the composition chloride of mundic and yellow copper ore, with an increase in the water issuing from the lode. In the deep adit level, west of cross-cut, on gossan lode, there is no alteration since last report.

SOUTH WARD.—T. Foote, July 17: Saturday last being our setting-day the engine-shaft was set:—To drive north at the 60, to six men, stent four weeks, at 3/- 10s. per fathom; the lode in this end is much the same in character as for some time past. You will see that we have put two men more in this bar-

gain, so as to push on the end faster towards the ore ground in the level above. To drive south at this level, to six men, stent four weeks, at 4/- 5s. per fathom; the lode is full 3 ft. wide, composed of capel, blonde, mundic, and stones of lead &c.—strong looking lode: I think we shall have an improvement in this end shortly.

To drive north at the 40, to four men, stent four weeks, at 3/- 10s. per fathom; the lode in this end is still looking favourable, and promising to improve, worth 7 cwt. of lead per fathom, and the ground more settled. To drive south of this level, stent four weeks, at 4/- 10s. per fathom: the lode also in this end is looking very promising, and worth 7 cwt. of lead per fathom. I would also remark that the ground is more settled in this end, and the lode more compact, altogether a fine-looking lode. Each of these ends at the 40 is passing through some good ground, and should the 60 reach the same, and which I hope will soon do, it will place the mine in a good position, as we shall have 20 fms. of backs to work on in each level. The engine and pitwork are in good order, and working well.

ST. AGNES CONSOLS.—Wm. Vivian, July 18: In the 26 fm. level, driving on Wheal Rock lode, west of the engine-shaft, the lode is 4 ft. wide, and worth 6/- per fathom for tin. It continues to improve. In the 26 fm. level, east of shaft, the lode is 4 ft. wide, very kindly in appearance, and worth 4/- per fathom. The stopes in the back of the 26 fm. level are worth 8/- per fathom. We are making good progress in sinking the engine-shaft; the stratum of ground that we are sinking on is congenial for tin. The prospects of the mine, on the whole, are certainly very encouraging.

ST. JUST AMALGAMATED.—Richard Pryor, N. Bartle, T. Richards, July 17: During the past week there is no change occurred throughout this mine worthy of remark. We hope soon to commence the contemplated alterations in our pitwork, &c., preparatory to our sinking the mine to a greater depth. Saturday next being our pay and setting day, a full report shall be sent you.

ST. LAWRENCE AMALGAMATED.—Wm. Wasley, July 18: St. Lawrence:

This week the men have been securing a large run that we met with in clearing the footway shaft, but I hope we shall be able to get on fast again after we have finished the run, in a day or two more.—Victoria: We continue to get some very nice lumps of ore from the end driving from the bottom of Hamilton's engine-shaft. The water is still very troublesome, which greatly impedes our progress, but I hope to have the engine ready shortly, when we shall be able to clear both water and stuff with ease, and so be able to make better progress with the level, &c.—Valentine: Since last week's report we have cut into two cross-joints in the cross-cut driving west at Valentine and a

to value; in the same level south the lode is 1 ft. wide, yielding saving work. The stope and pitches throughout the mine continue to yield their usual quantity of ore. We have this day sold out No. 1 parcel of silver-lead ore, computed 68 tons, to Messrs. the Treffry Estate, at 23. 2s. 6d. per ton.

WHEAL PEVOR.—Edmund Rogers, Wm. Pryor, July 18: We have completed the cutting down of Sir Frederick's engine-shaft about 36 fms., and are doing our utmost with a full pane of nine men and three boys, to get this shaft finished to the deep adit level, which is 50 fms. from surface. We are getting on satisfactorily in clearing the adit. The pitch working by five men, at 12s. in 1/4, in back of the deep adit, is looking very well, the lode being in places fully 15 ft. wide, but we are only carrying it 5 ft. We have two other pitches working in back of the shallow adit, which is 40 fms. from surface, and the men are getting fair wages. The house for the winding engine is completed, and the engineers are now busily engaged in putting in the engine, which they hope to finish in about a fortnight from this time. Soon after this engine goes to work we shall be in a position to send to surface a large quantity of capital tinstuff. The masons are now working with energy to complete the house for the 60-inch pumping-engine. We have a capital lot of stone on the mine, and as we have a good pair of masons the building of the house will be completed with more than ordinary dispatch. We have completed our smiths' and carpenters' shops, and are pleased to say that both our engines are on the mine. Our great point is to get the mine drained to the bottom, which is 50 fms. below the adit; and, judging from the great size and character of the lode, which is undoubtedly the champion one of the district, we have every reason to believe the shareholders will be well paid for their outlay on this property. We hope to sample about 100 tons of good tinstuff in about three weeks from the present time.

WHEAL RUBY.—J. Richards, July 17: The men are making fair progress in driving the adit level west on the course of the main lode, towards the old miners' western shaft. We have not cut into the lode since last report; this can be done when thought proper, our present object being to hasten on the level in the easiest ground, to effect a communication with the old workings before us. We are driving at the rate of about 6 ft. per week, and the ground is looking favourable for doing more at this time. I hope it will so continue, and that we shall soon communicate with the other shaft, where I expect good results.

WHEAL UNY.—W. Roch, M. Rogers, S. Coade, jun., July 13: The water is nearly to the back of the 110 fm. level, east of Goodinge's shaft. We should have drained this level ere now had not the boilers at the pumping engine begun to leak, which had to be repaired without delay. The lode in the 100 east is worth 30. per fm. A winze in the bottom of this level, a few fathoms behind the end, is worth 15. per fm. The rise in the back of the 100 is worth 20. per fm. The 80. east is worth 8. per fm. A winze below this level is worth 12. per fm. The 60. east is worth 8. per fm. We are continuing the cross-cut north through the lode in the 45 east. The ground is favourable for driving in the 30 east; the lode is poor.

WHEAL VINCENT.—Thomas Odgers, July 18: The stopes are much the same as when last reported on. At Nicoll's shaft we are forced to suspend the sinking by reason of the water. We have commenced to take out the bob-pit, and to put up a line of rods to pump the water. The water is forked well at the engine shaft. The stamp work well. We are busily engaged in getting in the bubbles. The masons are building the engine house.

WILLOUGHBY.—H. Nottingham, July 17: There is nothing new to report from either of the ends driving from Pyne's shaft. There are some indications of the lode we lately intersected in the north end making off into the hanging ground of the lode we are driving on, from which I am led to think that the two will carry on as distinct and separate lodes. We have good ground for driving, and we are making progress accordingly. I have carefully dialled these levels, and find that the lode we are driving on is bearing north-east and south-west. I think after we have opened more on it we shall find that it is an east and west lode. We have, according to calculation, near 2 fms., to drive in the cross-cut before intersecting the old lode. I am very anxious to see it here before resuming the sinking of the shaft. I have three men in the south part of the old workings clearing away the stuff from the bottoms and cutting a step of the ground to level it, and enable us the better to see what we have here to work upon. We have commenced grating the heap of leadstuff we have broken at surface, and I hope soon to have the jiggers in working order, that we may go on with the dressing of it.

CHONTALES.—The last advices from Mr. Bell are very encouraging. The produce of the ore had improved from 4½ to 6 dwt. per ton. The new 40-ft. winder-wheel was completed and working admirably, and Mr. Bell was actively engaged in getting in timber for the additional stamps, some of which he confidently hoped to report to work by the next mail. The wet season having now fairly set in, ample water power may be calculated on for the next eight or nine months, and as there appears from recent reports to be an unlimited supply of ore, and sufficient labour for all purposes, the shareholders should, as soon as the additional 24 heads of stamp are completed, be in receipt of large remittances of gold.

GREAT WHEAL VOR.—This mine is said to be improving, particularly in the ground west of Edwards's shaft. Several points have improved since the meeting, and the sale of 22 tons of tin on the 17th inst. left a good profit on the month's working.

BURROW AND BUTSON.—Of the eighteen shafts sunk by the former workmen several of the most important have within the last few days been examined, and found to be standing whole and sound, and to be filled only with loose debris and surface water, which has been let off without any difficulty, thus expediting the operation of securing them against possible accidents with unexpected success. Ladder roads and drawing and pumping shafts will, therefore, speedily be made available for their original purposes. On Tuesday last the re-erection of the engine and boiler houses and other works have been set by public tender, of which particulars will be found (in another column) among our Mining Correspondence. Everything about these mines and their management confirms the very favourable opinion originally entertained and expressed by all practical men, who were well acquainted with them during the former working, and they predict with increased confidence an almost unprecedentedly early and great success for the shareholders. The masons, favoured as they are by the best season of the year, and by all materials liberally and ready at hand, have contracted to finish the engine and boiler-houses in six weeks instead of ten, as was at first promised by the agents.

WEST POLBRENN (St. Agnes).—The new lode discovered at this mine last month proves of great importance to the shareholders; it is found to increase in value as opened on, and though first set down as worth 7. per fm., the best judges in the district now estimate it as worth from 25. to 30., and admit there is every indication of its further development.

NEW HINGSTON DOWNS.—The first sale of tin has been made, realising 82. 10s. per ton, at a profit of 114. The mine is opening out in a most satisfactory manner, and it is confidently anticipated by those best able to judge that it will soon be placed in the Dividend List.

VAN CONSOLS.—Capt. Roach has not been able to send his usual weekly report, the underground operations having been suspended since Tuesday, while the damage to the wheel-pit is being repaired. This will be completed in a few days, when the underground work will be resumed. The communication between Gandy's and Little's will be effected in a shorter time than promised by the manager at the general meeting. This accomplished, large quantities of ore will be brought to surface.

MINING MAGAZINE AND REVIEW.—The articles in the July number, just issued, are: Torranchill Mineral, by John Mayer, F.C.S.; on the Southern Fringe of the South Staffordshire Coal Field, by W. B. Collis; Colorado Territory, its Aspects and Mineral Resources, by Leonard S. Root; Coal-Oil, and Petroleum. There are also notes on Current Topics, Societies and Institutions, &c., as usual.

THE MINING JOURNAL.—Now ready, neatly bound, price 17. 10s. VOLUME XII, for the year 1871. To be had through any newsagent or bookseller, or direct from the *Mining Journal* office, 26, Fleet-street, E.C.

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Shareholders in Emma Mine not wishing to realise may secure all the advantages of the backwardation, as well as their dividends, by application to Messrs. Hume and Co. An early application is necessary to secure present terms.

HONDURAS.—Notice is hereby given, that a MEETING of HONDURAS BONDHOLDERS will be HELD at the London Tavern, on FRIDAY next, the 26th inst., at Two o'clock precisely.

Captain BEDFORD PIM, R.N., Special Commissioner of Honduras, in the chair.

Cards to admit bondholders to the meeting will be issued at the Honduras Government Financial Agency, 8, Moorgate-street, City, E.C., without which card no person can attend the meeting.

THE AUSTRALIAN MINING COMPANY
(Incorporated by Royal Charter).
Notice is hereby given, that the TWENTY-SEVENTH ANNUAL GENERAL MEETING of the shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, E.C., on MONDAY, the 20th inst., at One o'clock P.M. precisely, to receive the report accounts, and balance-sheet for the past year; to elect directors in lieu of Henry R. Wotton, Esq., and Frederick Collier, Esq., who retire by rotation; to fix the remuneration of the auditors for the past year; to elect auditors for the present year.

By or, GEO. PALMER, Chairman.

No. 1, Coleman-street-buildings, between Cornhill and Moorgate-street, London, E.C.

July 5th, 1872.

* * The MINING JOURNAL (with TWO SUPPLEMENTS) of this day comprises Twenty-eight Pages. Those of our subscribers who may not receive perfect copies can have the omission remedied by application to the office.

* * With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: Mr. Warington Smyth's Lectures at the Royal School of Mines—Mines and Works of Germany, No. I.—Llanbrynmair (Montgomeryshire)—Slate Districts of North Wales, No. V.—Silk Trade—Russia's System of Underground Hauleage—Screening and Transport of Coal—New Coal-Cutting Machine—Manufacture of Steel—Life of Richard Trevithick—Coal Fields of Australia—Mineral Resources of Victoria—Tin in Queensland—Bullion Product for 1871—Petroleum—Foreign Mining and Metallurgy—Foreign Mines Reports—Patent Matters, &c.—Original Correspondence: Coal Mines Regulation Bill (T. Stephenson, B. Keighley); Ventilating and Preventing Explosions in Mines (E. Hanson); South Wales Coal Trade—Neath River; Best Mining Machinery and Tools; Mining v. Railway and other Speculations, No. III. (T. Spargo); On the Formation of Gossan (R. Knapp); Emma Silver Mining Company (R. Knapp); Camp Floyd and Emma Mines (W. Hussey); N. Ennor's Remarks on Tin and Tin Stamps, &c.; Resuscitation of Mines in Cornwall (C. Bawden); East Wheal Bassett; Douglas Head Mining Company; South Aurora Mining Company, &c.

* * With this week's Journal we give a SECOND SUPPLEMENTAL SHEET, which contains the usual monthly Australian Mining News.

[These Supplements should accompany each Journal: if any irregularity occurs we shall be glad to forward a copy of either on application being addressed to the office, 26, Fleet-street, London, E.C.]

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JULY 19, 1872.

COPPER.	E	s.	d.	E	s.	d.	E	s.	d.	IRON.	per ton.	E	s.	d.	E	s.	d.
Best selected...p. ton	13	0	11 1/2	0	11 1/2	0	0	11 1/2	0	Do., to arrive	12	10	0	12 1/2	10	0	0
Tough cake and tile	10	0	11 1/2	0	11 1/2	0	0	11 1/2	0	Nail rods	13	0	0	13 1/2	0	0	0
Sheathing & sheets	112	0	12 1/2	0	12 1/2	0	0	12 1/2	0	Staff'd. in London	16	10	0	17 1/2	10	0	0
Bolts	118	0	6 1/2	0	6 1/2	0	0	118	0	Do., ditto	17	10	0	17 1/2	10	0	0
Bottoms	118	0	6 1/2	0	6 1/2	0	0	118	0	Hoops, ditto	17	10	0	17 1/2	10	0	0
Old	100	0	0	10 1/2	0	0	100	0	0	At works	15	10	0	16 1/2	10	0	0
Burra Burra	107	0	0	10 1/2	0	0	107	0	0	Hoops, ditto	16	10	0	17 1/2	10	0	0
Wire	per lb.	0	1	2	0	1 1/2	0	0	0	Sheets, single	20	0	0	24	0	0	0
Tubes	0	1	2 1/2	0	0	0	0	0	0	Pig No. 1, in Wales	7	0	0	7 1/2	0	0	0
BRASS.	per lb.	0	0	0	0	0	0	0	0	Refined metal, ditto	7	0	0	8 1/2	0	0	0
Sheets	per lb.	0	0	12 1/2	0	0	0	0	0	Bars, common, ditto	12	0	0	12 1/2	0	0	0
Wire	per lb.	11 1/2	0	0	0	0	0	0	0	Do., mch.	10	0	0	10 1/2	0	0	0
Tubes	12 1/2	0	0	0	0	0	0	0	0	Railway, in Wales	11	0	0	12 1/2	0	0	0
Yellow metal sheathing	9 1/2	d.	10 1/2	d.	10 1/2	d.	0	0	0	Do., Swed. in London	15	0	0	16 1/2	0	0	0
Sheets	0	0	0	0	0	0	0	0	0	Do., Tyne Tees	12	0	0	12 1/2	0	0	0
SPELTER.	per ton.	0	0	0	0	0	0	0	0	To arrive	15	0	0	16 1/2	0	0	0
Foreign on the spot.	23	0	0	0	0	0	0	0	0	Do., f.o.b. Tyne or Tees	6	0	0	7 1/2	0	0	0
" to arrive ...	—	—	—	0	0	0	0	0	0	Do., f.o.b. Do., No. 3, f.o.b. Do.	—	—	—	—	—	—	0
ZINC.	per ton.	0	0	0	0	0	0	0	0	Railway chairs	5	0	0	6 1/2	0	0	0
In sheets	27	10	0	30	0	0	0	0	0	spikes	12	10	0	14 1/2	0	0	0
QUICKSILVER (p. bot.)	13	10	0	—	—	—	0	0	0	Indian Charcoal Pigs,	—	—	—	—	—	—	0
TIN.	per ton.	0	0	0	0	0	0	0	0	in London, p. ton	7	0	0	8 1/2	0	0	0
English blocks	£159	0	0	—	—	—	0	0									

NOTICES TO CORRESPONDENTS.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

HEMATITE ORE.—Will some correspondent state the value, f.o.b. in any English, Welsh, or Scotch port, of brown hematite assaying 52½ per cent. metallic iron, and of red hematite assaying 51 per cent. metallic iron?—M. D.

TIN.—Can any of your readers furnish reliable information about Tin Hill Mine to—a Shareholder?

GREAT WESTERN MINE, NEVADA.—About 12 months have elapsed since the Great Western Mine, Nevada, was launched, and prospectuses were forwarded to me, as well as others who were shareholders in other companies legitimately formed. The mine was stated in the prospectus, and afterwards verified by the Chairman to be one which would yield handsome profits, and return the fortunate shareholders a dividend by the following Christmas; but in what position does it stand now, after calling up 3/12s. 6d. per share, without, so far as I can understand, any work being done at the mine? A Mr. Nelson, nominated by the directors, was sent out to examine the property, and if he was satisfied the money was to be paid over to the vendor—£40,000. The money was accordingly paid, and a telegram sent to this country to that effect. Can any one interested inform me as to the true position of the company?—M. S.: *Sedap.*

ABERYSTWYTH (Silver-Lead).—These were recently the Nantico Consols, 20,000/-, 1/- shares. I see that the mines have been sold to a new company for 35,000/- cash and paid-up shares. Can any of the officials of the Nantico Consols inform me if the shareholders in the latter mine are entitled to any portion of the purchase money? I have never had any notice of the mine being legally wound-up.—ONE INTERESTED.

EAST NANT-Y-MWYN.—"J. H. B. L." should address a letter to the directors: however censorious such conduct may be, it is hardly a subject which would interest the general reader.

POLBRENN.—"A Shareholder" should attend a meeting, and state his views. An anonymous letter would effect nothing.

Gold Mining in Brazil.—In the Journal of July 8, 1871, mention is made under the heading "Gold Mining in Brazil," of Dr. Emmanuel Liais, geologist to the Emperor of Brazil, who was expected from that country by the mail steamer; and mention is also made of the intended publication of a treatise on the geology and mineral resources of the Brazilian Empire; that in 1869 he had been commissioned to inspect the districts of Minas Geraes, &c. I am interested in that country, and should feel obliged if some reader would inform me whether Dr. Liais published, or not, any work: and, if so, where obtainable; also the prospectus or description of the new mine he discovered.—READER.

CLAY BUDS.—"L. M." should consult his solicitor, or he may encounter trouble. Consents must be obtained.

PREMIUMS ON MINE SHARES.—We can see no grounds whatever for the complaint which "W. P." makes as to mine shares being sold at high premiums. The purchasers are quite as blameless as the sellers, since the former aim at obtaining a rate of profit which all reasonable persons know to be inseparable from enormous risk of loss. The purchasers are openly told that the entire working capital at disposal is, perhaps, 10,000/- (often much less), yet they are willing to believe that such a capital can earn 100,000/- or 200,000/- per annum profit. Now, all men of business know that if working capital return 20 per cent. per annum the business must be an excellent one; yet purchasers of mine shares do not hesitate to believe promises of 1000 to 2000 per cent. per annum profit, and waste their capital accordingly. To ensure success it is necessary (but not more necessary) to use a little common sense in embarking in mining as in any other business.

THAMES TUNNEL.—"A. J." (Keilburn).—The Thames Tunnel at present forms part of the East London Railway, connecting New Cross with Wapping, and trains are constantly running through it.

UNDERGROUND LOCOMOTIVE.—"W. S."—The extreme height should be not more than 5 ft., width of gauge 22 in. to 28 in., length in proportion, wheels in proportion to height; must work on a gradient of 1 in 144 at least. The weight of a full coal wagon is about 15 cwt. A letter is forwarded through the post.—A. R.

MOUNT DALBY.—We could not publish the letter from "Bona Fide" without the writer's name being appended.

COST-BOOK SYSTEM.—"T. B." (Ulverston) should obtain Tapping's Prize Essay on the Cost Book System (price 5s.), which can be had, through any bookseller, from our office.

DOLGOATH MINE.—"J. P." (Truro).—The error was undoubtedly ours. The June dividend was 5592/- (2/- per share), as stated in our City Article on June 15. We regret that the error of stating the amount at 2182/- in our monthly list should have happened.

KESWICK MINES—*Errata.*—In last week's Journal you published a statement by me in reference to the Keswick United Silver Lead Mines Company, which I had lately been visiting. In that statement a serious clerical error has been made—"Some large pieces of lead ore, from 100 to 200 or 300 cwt. I should think, had been raised from the Ladstock Mine." What I wrote was—"Pieces of 1, 2, or 3 cwt.;" and as the error is a serious one, although evidently a misprint, I shall feel obliged by your inserting this correction.—BRYCE M. WRIGHT, jun.: *Great Russell-street, July 16.*

Received,—"J. S."—W. H. G."—L. S. H."—A Shareholder"—"Mentor"—"Cornubensis"—"H. G."

** In this week's Supplement we publish the first of a series of Papers on THE MINES AND WORKS OF GERMANY. We expect to include Notices of the Iron Works of Belgium; Coal Mining in Saxony; Zinc Extraction on the Prussian Frontier; Iron Smelting in the Erzgebirge; a Forge in South Germany; Lead and Silver Reduction in Andreashberg; the Labour Market on the Continent; Sketch of the Rise and Development of Iron Manufacture in Belgium.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, JULY 20, 1872.

RAILWAY IRON, AND HIGH PRICES.

It is a matter of very considerable interest to examine the effect of the present extremely high rates prevailing for iron upon the foreign demand for British railway material. We can now extend the analysis to another month, and it appears that in June the exports of our railway iron were 81,164 tons, against 103,052 tons in June, 1871, and 125,474 tons in June, 1870, while in the first six months of this year the aggregate exports were 448,042 tons, against 476,191 tons in the corresponding period of 1871, and 562,700 tons in the corresponding period of 1870. The whole of the decrease—and more too—which has accumulated against this year's figures occurred in the second quarter of the year. Thus, at the close of March the exports of our railway iron compared as follows with those effected in the corresponding period of 1871:

Exports to March 31, 1872	Tons 201,321
" " 1871	174,479
Increase this year	26,842
While at the close of June, the comparison came out thus:	
Exports to June 30, 1872	Tons 415,042
" " 1871	476,191
Decrease this year	28,149

The actual decline in the exports of railway iron from the United Kingdom during April, May, and June was thus 54,791 tons, or at the rate of 219,164 tons per annum. Surely this result, indicated by the calculations which we have ventured to make upon the basis of the latest official information available, affords conclusive evidence that great prices involve also great evils. By crippling the purchasing powers of intending customers they restrict consumption to very narrow limits, and close markets which would otherwise develop naturally and readily into outlets of very considerable importance.

The great impetus which has been given of late to the English iron trade has come from the United States, which have consumed very large quantities of our railway iron during the last two or three years. But even this extremely valuable outlet appears to be failing us, as will be seen from the annexed comparison of the exports of British railway iron to the United States during the first six months of the last three years:

Month.	1870.	1871.	1872.
January	Tons 24,610	28,264	28,648
February	32,957	32,784	53,131
March	23,222	41,917	41,175
April	37,016	32,456	50,558
May	33,175	64,144	40,840
June	46,065	44,919	37,973
Total	197,045	211,781	239,011

These figures seem to show tolerably conclusively that the American railway interest is becoming alarmed at the growing dearness of rails and accessories, and that it is restricting its purchases accordingly. Up to April, the returns kept up well, but in May the exports of our railway iron to the United States sank all at once from

50,588 tons to 40,840 tons, while in June there was a further drop to 37,973 tons. There cannot be a doubt in any dispassionate mind that the small advance which the exports of our railway iron to the United States still exhibited at the close of June this year will be wholly lost before the year has run out, unless prices should return to a more reasonable level. Not that the United States have become smaller during the last few months, or that the field of American railway enterprise has been at all narrowed. On the contrary, the future which is opening out before American railways is practically unlimited, but it is clear that American railway companies are only acting with prudence when they decline to purchase rails at unduly high prices. Another important market for British railway iron—British India—appears just now to still greater disadvantage than the United States. In June, British India only took our rails and accessories to the limited extent of 2139 tons, as compared with 15,472 tons in June, 1870, while the aggregate consumption of our railway iron on Indian account in the first six months of this year was miserably small, amounting to only 6624 tons, against 26,763 tons in the corresponding six months of 1871, and 102,564 tons in the corresponding six months of 1870. The projected State lines which had been expected to revive the Indian demand for our railway iron thus appear to be all but at a standstill, albeit that India took 2139 tons in June, as compared with 1732 tons in June, 1871, so that matters appear to be growing rather better than otherwise. The Australian demand for our railway iron is slightly improving, but only very slightly. The Canadian consumption of British railway iron appears to have declined in June, and the Russian demand remains greatly curtailed, having amounted in the first six months of this year to only 21,064 tons, while in the first half of 1870 it stood at 114,454 tons. So much for high prices.

posing to take the management of collieries are incapable of giving valuable suggestions with regard to the business they are best acquainted with, and a knowledge of which is of vital importance to them. For those reasons, then, we regret that the judges have been unable to perform the arduous duties undertaken by them, and that no decision has been come to with regard to the essays. Nearly five months have elapsed since the manuscripts were sent in, and the writers, who had devoted a great deal of time and labour in working up and explaining their views, expected long before this that the result would have been made known. Many of them we do know have given up all thought of the matter, tired and at last exhausted waiting. We are quite aware that the season has been a very trying one, and that the parliamentary duties of Mr. HUGHES have been heavy. Still, we cannot but think that the decision come to by the Mr. HUGHES, seeing that the points to be decided are of a technical and practical character, and with respect to which the hon. member Of the literary abilities of the writers of the essays, of course, we should very much like to have had Mr. HUGHES's opinion, apart from the subject matter itself in its scientific bearing.

There is another point that should not be overlooked. The carrying out of the New Mines Bill will require fresh General Rules for the guidance of the men at all collieries, and such being the case, it is advisable before they are got ready, or prepared for being sent to the Government Inspectors, that all persons interested in our coal essays, or such of them as contain any reasonable suggestions, so that they might in some shape or other be embodied in the general code, seeing that however important they may be they have been kept outside the pale of parliamentary notice, owing to no decision having been come to by the judges in time.

In noticing the subject thus far we may say that we have been impelled to do so owing to the enquiries so frequently made by persons interested as to when the decision of the judges was likely to be made known. We can well understand that the reading over of such a vast mass of writing is a task of no ordinary character, and one that very few persons would undertake. But as gentlemen have volunteered to undergo the labour we can only, on behalf of the writers, express a wish that no time will be lost in setting their minds at rest. To see the termination of a contest in which the principal question is almost one of life and death to those engaged in mining operations is a consummation to be devoutly desired indeed; and we know we speak the feelings of the writers of the essays—and, we believe, also of M. HERMON—when we say that it is in the highest degree desirable that the judges' award should be no longer delayed. Such, we consider, is due to the writers themselves, to M. HERMON, and also to those gentlemen who have undertaken the onerous yet honourable duty of deciding as to the best essay written on the most momentous question of the day.

THE EXPORT COAL TRADE.—The exports of coal from the United Kingdom are still increasing, having amounted in June to 1,168,067 tons, as compared with 1,063,267 tons in June, 1871, and 1,105,876 tons in June, 1870. In these totals the exports to Germany figured for 233,214 tons, 246,168 tons, and 202,597 tons respectively; and those to France for 164,187 tons, 158,348 tons, and 193,719 tons respectively. The aggregate quantity of coal exported from the United Kingdom to June 30, this year, amounted to 6,446,080 tons, as compared with 5,709,967 tons in the corresponding period of 1871, and 5,632,457 tons in the corresponding period of 1870. In these latter totals the exports to Germany figured for 924,675, 1,094,434, and 857,317 tons respectively; and those to France for 1,220,078 tons, 874,548 tons, and 1,215,237 tons respectively. Our exports of coal have increased this year to Russia, Sweden, Holland, France, Spain, Italy, Brazil, and British India; but they have decreased to Denmark and Germany. The value of the coal exported in June was 757,847, as compared with 495,759, in June, 1871, and 524,782, in June, 1870; and in the six months ending June 30, this year, 3,970,130/-, as compared with 2,735,892/- in the corresponding period of 1871, and 2,680,232/- in the corresponding period of 1870.

BEST MINING MACHINERY AND TOOLS—PREMIUM OF TWENTY POUNDS.—In the Supplement to the Journal of July 13 a Correspondent offered a Prize of 20/- for "the best account of the principal machines and tools used in mining operations, the names of their manufacturers, and prices, together with the result of the writer's experience in their use." We are glad to state that the matter has already assumed a tangible shape, and that Mr. J. H. Collins, F.G.S., the lecturer of the Miners' Association of Devon and Cornwall, has directed the attention of the advanced students of the association to the Prize, and strongly recommended them to endeavour to obtain it. It may be added that the Prize is open to public competition.

PARIS EXHIBITION, 1872.—The Exhibition inaugurated under the auspices of the National Society for the Encouragement of Working Men, will be opened in the Palais de l'Industrie, at Paris, in the course of the ensuing week; and from the list of exhibitors already issued there is reason to anticipate a great success. It appears that several well-known English firms will be represented by their manufacturers, and that there will also be exhibits from Belgium, Italy, Sweden, Denmark, Alsacia, Spain, and other countries. The whole of the arrangements seem to have been made upon the most liberal scale, and reflect the highest credit upon Mr. Troncin du Mersan, the energetic president of the society. The distinctions to be awarded to the exhibitors consist of gold, silver-gilt, silver, and bronze medals, honourable mentions, and certificates of competency for workmen, and great care has been taken to ensure the impartiality of the awards.

THE RAILWAY SPRING COMPANY.—For some years past the works carried on by the late firm of W. Charles and Co. of the Milland Works, Sheffield, for the manufacture of railway springs, has been celebrated for the valuable and improved machinery employed, and a company has recently been formed—the Railway Spring Company—to acquire from the trustees the property and goodwill, and continue the development of the business. Although only a few months have elapsed since the change was effected, the enterprise has proved eminently successful. The works are now in full operation under the new régime, and the company have orders on the books which will take them some time to execute. The works are fitted up with the latest improvements in machinery for slitting, nibbling, and punching the various plates of which the springs are composed. The company also have the plant for making buffer, conical, volute, and spiral springs. The apparatus for testing the springs is of the most improved principle, as is also the machinery for making the special requisites for locomotive and other springs. This firm confines its attention exclusively to the manufacture of springs, and in this branch of business about 150 skilled workmen are constantly employed, the quality of their work being the more reliable in consequence.

MINES (COAL) REGULATION BILL.—In the House of Commons, on Tuesday, on the motion that the Bill be read a third time, Lord Ely said he saw with regret, in the report of a meeting held at Barnsley, a statement to the effect that the provisions of the Bill were not satisfactory to working miners. The Bill contained nearly everything they had agitated for, and the compromises were agreed to with the sanction of those who represented them; and therefore he was justified in saying that, upon the whole, the miners had every reason to be satisfied with the Bill. One point only was not made perfectly clear by the Bill. The miners had long agitated in favour of a more effective ocular inspection by Government Inspectors, but they agreed to give this upon the understanding that, in lieu of it, what was proposed by his hon. friend the member for South Durham should be imported into our legislation—a proposal that a report as to ventilation, &c., should be kept in a certain specific form in every mine. When the member for Dudley (Mr. Sheridan) proposed that the Inspectors should keep a record of the number of mines they inspected, he opposed the motion, because he thought it was contrary to the principle of the Bill, which, he maintained, was not the principle of ocular inspection. Contrary to the wish of the representatives of the miners, he felt it his duty to vote against that proposal, but he did so in the belief that the provision in the Bill with reference to this report would be carried into effect in the way suggested by his hon. friend for South Durham. However, on examining the Bill more closely, he did not think it would do so, as there was no form of the report in the schedule, nor any proviso that a copy of the report should at any time be sent to the Inspector. He had privately communicated with the Home Secretary, who said it was not desirable to re-commit the Bill in order to insert such a proviso, but he trusted the right hon. gentleman would cause the matter to be brought under the notice of the House of Lords. Mr. Bruce said the

the noble lord had referred to some sort of a bargain, but he at all events was no party to it. Lord Echo did not mean to imply that his right hon. friend had had any thing to do with the bargain. Mr. Bruce said the whole question had been carefully considered in Committee, and the proposal of the hon. member for Wednesday was not agreed to. Mr. Brogden said that in consequence of the general wish of the Committee he withdrew his amendment and the schedule attached to it. Mr. Richard wished to state his conviction that the Home Secretary had been very much mindful of the interests of the working miners.

REPORT FROM UPPER SILESIA.

Breslau, July 14.—COALS: Prices are rapidly rising again; the official price at the Königsgrube, the largest fiscal mine which produces the best coal in Silesia, is to-day at the pit:—Large coal 13s. per English ton; nuts, 8s. ditto; small, 6s. ditto; for other good Upper Silesian coals about 1s. per ton less. The demand for Upper Silesian coals is very active at present; the stocks are everywhere diminishing, and already contracts have been made for the year 1873 at higher prices than the present, in consequence of the favourable tendency of the iron markets. The coal production is again increasing; it is estimated that the coal raised this year, in comparison with 1871, will exceed 300,000 tons. The exportation to Austria and Poland has considerably increased, and larger quantities have again been sent to Berlin and Stettin, in both of which places, and especially in the latter, the Silesian coal had been shut out for some time. As soon as the Oder is made navigable at all seasons of the year a much greater quantity is likely to be sent there.

Iaen.—The works are full of orders for the next three months, and most of them have already disposed of the whole production to the end of the year, some even have made contracts for a part of 1873, so that a fall of prices is not expected, especially as coals are rising so rapidly again. The present prices at the works are:—Silesian coke pig, 6s. 10s. to 6s. 15s. per ton; charcoal pig, 7s.; bars, 11s. 10s.; rolled iron, 15s. 15s.; sheets, 28s. 10s.; forged iron, 17s. 10s.; rails, 15s. to 16s.

Zwick.—Since the 9th the price of spelter has still further improved, an 17s. 10s. per cwt. has been paid for special brands. There is much enquiry, and a further advance not improbable.

Brodan, July 15.—Since my last report the upward tendency of Spelter has continued; several larger transactions, both in ordinary and special marks, have taken place. To-day, a large parcel of ordinary spelter has been sold at 7s. 10s. per cwt., and Scheffler is to-day not to be had at 5s. above last week's quotation. In consequence thereof the prices of sheet zinc have likewise been raised from 5 to 10 sh. per ton.

REPORT FROM CORNWALL.

July 18.—There was a very strong feeling in various localities "down west" that the week would open with an authoritative rise in the standard. This anticipation was not fulfilled, but higher prices have, nevertheless, been obtained for sundry parcels, and the demand continues good. There is a progressive development of legitimate enterprise onward in most of our districts, which is manifesting itself in a very encouraging manner, promising well for permanent results. This the state of the market will foster, while it is not calculated so much to aid wild and purely speculative projects.

There is no question that the recent discoveries of tin in Australia mean something. Twelve months since there were only 7tin mining leases in force there, now there are 2240 in existence. Of course it is not every "hal" that is going to pay. Nevertheless, there can be little doubt that Australian tin will in the future—when its deposits are well in hand—exercise a considerable influence upon the market. However, that is not likely to be this year—possibly not the next. A gentleman engaged in the Mining Department under the Victorian Government, sent to report upon the tin mines in the New England district, has stated his belief that the deposits of stream tin there are far richer than those in any other part of the world, instancing the Elsmore Mine as being richer than any mine in England. As to copper, the production of which the high price in England has communicated a great stimulus, in the Goulburn, Orange, Menato, Bathurst, and Bourke districts rich lodes are being worked. The Coban Mine, at Bourke, where the lode is 30 feet in width, it is said to be as rich as the Burra Burra, of South Australia. Smelted specimens have yielded 7s. ozs. of pure copper to 12ozs. of ore.

From Victoria last year, according to the Government official returns, 250 tons of tin ore and 17,808 lbs. of metal were exported, whilst the total value of the tin exported from the colony since the discovery of the gold fields is but 255,891L. The tin (black sand) raised during 1871 amounted to 333 tons; the quantity shipped, 193 tons. The price per ton on the spot is 60L.; the price in England ranged from 72L. to 92L. per ton. The following are the localities in which it was raised, viz.:—Eldorado 253 tons, Woolshed 40, Sebastopol 20, other places 20: total 333. The quantity of tin smelted in the division was only 30 tons; the percentage yield was about 68. Of the smelted tin 6 tons were exported. The price on the spot is 12L., and in Melbourne 13L.

The Metalliferous Mines Regulation Bill, with its twin-brother the Mines Bill, pure and simple, has passed the ordeal of the third reading in the Lower House, and will have no difficulty in making its way through the Upper. In its present shape it contains little that is objectionable; and, on the other hand, is not so useful in all respects as it might have been. Nevertheless, it is a good, sound, valuable, and, we believe, workable measure. The proposal of M. Magniac to insert a clause regulating the Doctor and Club system has led to a correspondence between that gentleman and Mr. W. J. Corin, of Liskeard. In his last letter, published in the *Western Morning News*, M. Corin suggests how the difficulty which exists, and which, it is remembered, is only a partial one, might be obviated. He remarks: The amount paid by each miner is extremely small, and, considered as a payment for even a very little medical attendance, is very unremunerative to the medical men; it is the number (each paying this small sum) that makes it at all worth the while of a surgeon to accept an appointment, or, indeed, that makes it possible for him to do so without loss to himself: if he does accept a small number it is because he is willing to lose now with the hope of being paid by-and-by when the number may be large. But it would be found in practice that if a few men in a large mine choose a surgeon for themselves, neither he nor any other would be willing to take them. * * * Why should not mines choose their surgeons, as clubs do? I have the honour of being surgeon to several clubs, having been elected by the members. They unanimously chose me, yet there were doubtless many who personally would have preferred their own medical men, but they waived their private preferences in favour of the wish and choice of the large majority. So let it be with mines. When a doctor is to be appointed to a mine, or if a large one and two surgeons are considered necessary, let the managers and agents give the miners a congé d'élire, and let the men as a body act as a club would do, and after due deliberation decide on the surgeon or surgeons to whom the appointment shall be offered.

An interesting discovery has recently been made at Wheal Seton. Hot springs are no uncommon phenomena in Cornish mines, but in this instance a spring has been tapped not only of very unusual temperature, but impregnated with saline matter to a very remarkable degree. It seems that the existence of the spring was first noticed about 12 months since by men who were engaged on a pitch in the 100 fathom level of Wheal Seton. Operations were then suspended at that point, and no further notice taken of the occurrence until a few weeks since, when the working was resumed. Gradually both the springs in the air in the end became warmer, until the former reached nearly 100°, and the latter over 90°. Moreover the water increased both in quantity and force, which was variable, until it is now being discharged at the rate of between 40 and 50 gallons per minute. Wherever it falls, upon drying, a white incrustation is observed, which is very salt to the taste, so is the water itself. By order of the executive, Capt. Robt. Williams, the managing agent, forwarded a bottle of the water to the analytical chemist of the Trust Agricultural Association, Mr. S. T. Rowe, whose results show that an impure gallon contains more than 1000 grains of saline matter in solution, more than half of which is ordinary salt, the bulk of the remainder being carbonates. The water is clear, but produces an irritation of the skin after long contact with it, and is now so hot that some of the miners have refused to work on it. It occurs in a great cross-course, is more than three miles from the sea, and much below the sea level. The heat is supposed to indicate the presence of a strong lode of some kind in the neighbourhood, although the special cause of the heat and saltiness is a matter which seems difficult of explanation.

Attention has been many times called to the unfortunate way in which some of the quarrying operations in the sister counties (we refer particularly to the granite districts) are carried on. Not very long since the Men-an-tol was destroyed. Then the Cheesewring was propped and shored until all its picturesqueness is gone. Still more recently the famous stone house of Daniel Gumb, in the same locality, has been destroyed, although Gumb was a man of whose attainments, in an age when learning dwelt afar off from the ordinary labourer, Cornwall might well have been proud. And now from the most remote parts of the country, as well as from many a spot on Dartmoor, one hears of masses of rock of great picturesqueness—the lions of

their neighbourhood—being recklessly shattered by the quarrymen, though in themselves of little value, because they are, unfortunately, too easily got at. Their protection, which is really a matter for the landowners, would not in the least pre-judge legitimate quarrying; rather would it be advanced.

REPORT FROM SCOTLAND.

July 18.—The Warrant Market continued very irregular last week, 112s. cash was accepted on Wednesday, and the price rallied again on Thursday to 118s., closing at 116s.

On Tuesday, after the holidays, the opening price was 117s. 6d., and as high as 118s. 3d. was paid, but the closing price was—sellers, 117s. 6d. prompt cash, and 118s. fourteen days.

Yesterday the tone at the opening of the market was rather quiet, and business was done as low as 116s. 3d. cash; but an improvement soon set in, and the close was steady—buyers, 117s. 3d. cash, sellers, 117s. 6.

To-day there has been more desire shown to buy, and a good business has been done from 117s. 6d. up to 118s. 3d. cash, closing with buyers at the best.

There is no change in makers' prices, although some of them must be regarded as nominal.

	No. 1.	No. 2.
Gartsherrie, at Glasgow (deliverable alongside)	110s. 0d.	120s. 0d.
Coltness ditto	145 0	120 0
Summerlee ditto	140 0	120 0
Carnbroe ditto	130 0	119 0
Monkland ditto	125 0	115 0
Clyde ditto	120 0	117 6
Govan, at Broonielaw ditto	120 0	119 0
Langloan, at Port-Dundas ditto	137 6	117 6
Calder ditto	140 0	—
Glen Garnock, at Ardrossan ditto	133 6	120 0
Edington ditto	122 6	120 0
Dalmellington ditto	125 0	120 0
Carson, at Grangemouth, selected ditto	—	—
Shotts, at Leith ditto	—	—
Kinnel, at Boness ditto	125 0	120 0
Bar iron £15 0 0	—	—
Nail rods 15 0 0	—	—

SHIPMENTS.	Tons
For the week ending July 15, 1871.	23,328
July 13, 1872.	20,254

Decrease 3,074

Total increase since Dec. 25, 1871. 94,062 tons.

The Iron Ore coming to hand is very firmly held in good hands, and first quality can only be purchased at high rates; inferior sorts are also bringing unusual prices, and very poor stone is selling at profitable prices.

Malleable Iron has been again advanced 20s. a ton, making first common bars 15s., and second ditto 14s. 15s. Plates and angles in proportion. With this advance wages have been increased to millmen 10 per cent., and puddlers are receiving 1s. per ton additional. The engine-keepers' wages have also been advanced 6d. per day in this and neighbouring districts. With these advances comes the sinister rumour that one or two of the malleable works in this neighbourhood will temporarily suspend working, as the high price of pig-iron, coal, and wages are out of all proportion to the price paid for the finished article. The works are in the meantime busy, but some makers are said to be supplying finished iron 5s., or thereby, under present cost price.

An influential meeting of gentlemen connected with the manufacturing and engineering trades in Dundee has been held to consider the propriety of erecting a monument to the late James Carmichael, engineer. On the motion of Provost Yeaman, it was unanimously resolved to erect a statue, in bronze, of the late Mr. Carmichael, in recognition of the advantages resulting to the engineering and iron trades of the country from the inventions which he perfected. In 1821, a plan was invented by Mr. Carmichael for reversing steamboat engines from the deck of the vessel, and the invention being given free to the trade, it was at once adopted throughout the country. However, the most important of his inventions was the "fan-blast, or blowing machine," for heating and melting iron. To the trade of the country this was also given as a gift, and a complete revolution in the heating and melting of iron was the consequence. By the new process a bar of iron could be brought to a welding heat in less than half the time which it formerly required; and so great was the saving effected, that, while before 11 sets of bellows cost upwards of 50s., a machine sufficient for 11 fires could be got for 6s.

The attempts by the mineowners to increase the output of their pits, and thus render themselves somewhat independent of their colliers, has met with a practical solution at Gartsherrie, where one machine, as perfected by Mr. Stevenson, the underground manager, is calculated to do the work of 30 colliers.—[A description of this new Coal-Cutting Machine appears in the Supplement to this week's Journal.] At the present time, when demand cannot be anything like met, this fact is important, and may have an important bearing on the future of the Scotch coal trade. As it is, prices for all denominations of coal have again advanced 1s. per ton, with a continuously flowing demand, which cannot be supplied. New shafts are being sunk, and new pits are being rapidly opened up, but the demand continues increasing. During the week the shipments were 35,612 tons, against about 34,000 tons in the corresponding week of last year, and vessels are ever waiting for cargoes.

BRICKS FROM BLAZE.—Mr. Murray has leased from the Glasgow Iron Company a large hill of blaze at their No. 2 Ironstone Pit, Garroch, Kelvin-side, for the purpose of making it into brick by machinery. A large and powerful engine has been erected at the works, which works a number of bruising-rollers and pan-mills for crushing the blaze. They are considered a good second-class fire-brick.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

July 18.—The accountant completed his scrutiny on Monday morning last, and during the afternoon of the same day the anxiously awaited result was officially declared by Mr. G. J. Barker, the Chairman of the South Staffordshire Ironmasters' Association. The accountant reports that the average price of bars for the last three months has been 11s. 11s. 7d. This will entitle the puddlers to an advance of 2s. per ton, and other finished ironworkers to an advance of 20 per cent. The price of puddling in South Staffordshire will, therefore, during the next six months be 12s. 6d. per ton, being 1s. 3d. per ton more than is at present paid in any other English iron district. This substantial advance in wages had been pretty generally anticipated by the trade, as shown by the successive revisions of price-lists during the last few weeks. On Friday Earl Dudley's price for bars was declared up another 1s., making the rate 16s. 12s. 6d.; the quotation of Messrs. Barrow and Sons (Bloomfield), and other leading houses being, 16s. per ton. The prices were firm, but without change, at the ironmasters' meeting to-day, although it is thought by some not unlikely that a still further advance will be declared shortly. Sheets and plates are, indeed, already firmer, the advance on best sheets of thin gauges being as much as 4s. per ton. To-day's quotations are:—Best sheets (singles) 27s.; ditto (doubles), 28s.; common sheets (singles), 21s.; ditto (doubles), 22s. 10s. per ton. At these unprecedented prices several transactions took place, although, as a rule, the ironmasters were reluctant to book orders, or even to give quotations. For galvanised iron sheathing the colonial demand is exceedingly buoyant, being stimulated, it is said, by the great number of wool stores in course of erection in Australia and New Zealand. The demand continues remarkably brisk for the various classes of iron used in the construction of railway fittings, notwithstanding that the orders on account of Russia have somewhat declined. For pig-iron the usual contracts are being freely placed at the full advance, all-mine being firm at 8s. to 8s. 5s., and cinder at 6s. to 6s. 5s., while for cold-blast iron of Shropshire make 8s. 15s. to 9s. are the ruling quotations.

A new blast-furnace for the manufacture of charcoal pig-iron has just been put into blast at Bradley, near Bilston, by Mr. James Light, and another furnace adjoining is in course of construction. By this enterprise an old (and, as was thought, an obsolete) industry has been revived in South Staffordshire, there being no other charcoal furnace in the district, and only two besides in the whole kingdom. Smelting iron with charcoal recalls the troublous days of Dud Dudley, who, it will be remembered, was the first to supersede the use of that fuel for iron making by what he quaintly termed "sea coals." A further historic interest attaches to the works from the fact that they are built on the exact site of the first blast-furnace erected in Bilston, by John Wilkinson, in 1766, where also the first blowing-engine in the world was erected by the renowned James Watt. The machinery is of the newest and best description, the following being the more noticeable features:—The blowing cylinder of the engine

is above the steam cylinder, and between the two cylinders are the links connected to the beam, a parallel motion and smoothness of working being thus afforded. The ore-crushing mill is worked from the end of the fly-wheel shaft. The material is raised to the furnace mouth by a water-balance lift, similar to that employed at the furnaces of the Chillington Company. The furnace already blowing will be devoted to charcoal pig, specially adapted to malleable castings and Bessemer steel, and the other furnace, when completed, will be devoted to the production of cold-blast hematite iron of a high quality.

The South Staffordshire Ironworks Company (Limited) is the name of another joint-stock enterprise, the prospectus of which has just appeared. The capital of this company is fixed at 70,000*l.*, in 10*s.* shares, and the objects of the undertaking are to acquire as going concerne and further develop and amalgamate the following establishments in the neighbourhood of Stourbridge:—The Bretwell Hall Ironworks and Rolling Mills, the Brettell Lane Ironworks and Rolling Mills, and the Wardsley Foundry and Girder Works. The three works are capable of producing 260 tons of finished iron, 100 tons of castings, and 50 tons of wrought ironwork per week, on which there is an estimated net profit of 16,000*l.* a year.

A Coalmasters' Association for the South Staffordshire and East Worcestershire district has been definitely formed, Mr. E. Fisher Smith (Dudley) being chairman, Mr. T. Barker (Wolverhampton) vice-chairman, and Mr. King (Dudley) secretary. Concurrently with the formation of the association, the following important resolution was carried:—

"That this association will insist upon one hour's rest being taken by the men and horses for meal time, the day's work to consist of eight working hours, and the men to go down and come up the pit in their own time."

Of this resolution a formal notice of 14 days has been given to the miners by the majority of coalmasters throughout the district. At present the attitude of the men is defiant. They reject the latter part of the resolution *in toto*, and demand a further advance of 6d. per day. Should both sides continue unwilling the inevitable result must be a general "lock-out," the consequences of which it would be impossible to estimate. There is reason to hope that some compromise will be effected before the notice expires.

In the price of Black Country hardware a general advance is taking place. Tin-plate and japanned goods are 5 to 10 per cent. higher, and stamped hollowware, from which there was a discount of 7½ per cent., is now declared net. The discount allowed on galvanised iron goods have been further reduced to 10 per cent. Metallic bedsteads are again dearer, the total advance on these goods since last September being as much as 50 per cent. The demand is generally well sustained, orders being particularly large for railway fastenings, and the heavier classes of engineering ironwork.

Additional shafts are, we learn, about to be sunk on the Cannock Chase coal field by two of the principal firms. In the West Bromwich district strenuous efforts are being made to free the waterlogged mines by the use of more powerful pumping apparatus than has been hitherto employed.

The North Staffordshire Iron Trade continues pretty much as last reported, an unsettled feeling still restricting operations. Prices are firm, with a tendency to advance. Grey forge-pig, of good brands, realises 6s. 10s. delivered, and other qualities are proportionately high. For ironstone the quotations are:—Furnace red mine 24s. to 27s. per ton, and pudding mine 30s. per ton. The men are not working with any greater regularity in this district than in the southern part of the county.

REPORT FROM MONMOUTH AND SOUTH WALES.

July 18.—There appears to be little variation in the state of the Iron Trade of this district. Steady activity is still to be noticed, every class of iron being in urgent request, so that the difficulty is not to find orders but to turn out the supplies required. During the past week there has been a rather considerable suspension of operations, owing to the meeting of the Royal Agricultural Society at Cardiff. This show is the great attraction of the Principality this week, and masters, managers, and workers alike flock to visit it. Mr. Marsden's new Crushing Machine excited very general attention. The out-turn of the works will not, therefore, bear favourable comparison with former weeks. In the demand there is little or no change to note; but makers, as was foreshadowed in previous reports, continue to enter very cautiously into new engagements, because things are still in such a state as will not admit of their placing contracts on their books with too much freedom. Very serious difficulties and losses may be incurred if manufacturers fetter themselves with numerous or extensive transactions at any time while things remain as at present. There does not seem

attended the staple trades of the district is seen by the increased traffic on the local railways. The gross earnings of the Taff Vale for the past half-year amounted to 190,372*l.*, as compared with 167,238*l.* in the first half of 1871, being an increase of 23,000*l.* The receipts of the Monmouthshire for the half-year was 85,791*l.*, as compared with 82,108*l.* in the first half of 1871, and 80,295*l.* in the first half of 1870. The Cambrian shows an increase of something like 6000*l.* in its earnings in the half-year; the Brecon and Merthyr, about 3000*l.*; Llanelli about 6000*l.*; and other smaller lines similar improvements.

Mr. G. Harrison, who has for a long time been chief engineer and secretary of the Monmouthshire Railway is about to resign that office.

The arrivals at Swansea include—The Amelie, from Bordeaux, with 110 tons of pitwood, for Livingston, Richards, and Co.; the Native Pearl, from Huelva, with 34 tons of mineral ore, to order; the Anster, from Antwerp, with 300 tons of iron ore, for Letechenix and Co.; the Jeune Benoni, from Bilbao, with 210 tons of iron ore, for James Strick; the Asterope, from Antwerp, with 150 tons of fire-clay, for Vivian and Sons; the Baptiste Marie, from Bilbao, with 135 tons of iron ore, for Governor and Company; the Edith, from Catania, with 406 tons of brimstone for Elford, Williams, and Co.; the Elizabeth, from Bilbao, with 195 tons of iron ore, to order; the Augusta, from Bilbao, with 228 tons of iron ore, to order; the Madeline, from Bilbao, with 35 tons of iron ore, to order; the Pembroke Castle, from Husaco, with 584 tons of argilliferous lead ore, and 36 tons of argilliferous copper, for H. Bath and Son; the Sheldrake (s.s.), from Bilbao, with 390 tons of iron ore, for W. H. Thomas and Co., and 163 tons of iron ore, for Landore Steel Co.; the Marie Rose, from Bilbao, with 220 tons of iron ore, to order; the Delplanche, from Bilbao, with 270 tons of iron ore, for Governor and Co.; the Eliza Griffiths, from Drammen, with 195 tons of zinc ore, for Dillwyn and Co.; the Mathilde Julie, from Bilbao, with 130 tons of iron ore, for Landore Steel Co.; the Guide, from Huelva, with 360 tons of sulphur ore, for Vivian and Sons.

REPORT FROM LANCASHIRE AND CHESHIRE.

Ju'y 18.—Another advance in the price of coal has taken place. Messrs. Knowles and Son, Messrs. Fletcher and Co., the Wigan Coal and Iron Company, and several other of the leading firms in South Lancashire have announced an advance of 2s. 6d. per ton, and their example will, doubtless, be followed throughout the district. On Monday morning the advance led to a strike of 800 colliers in the employ of the Duke of Bridgewater's trustees. The men demanded an increase of wages to the amount of about one-third of the advances on the selling prices; the proprietors refused to make the full concession, and offered a compromise, but the men declined to accept it, and ceased work. The miners at the colliery of Mr. Matthew Bennett, whose pits are also situated in the south-eastern district of the county, have struck for an advance of wages; and, in fact, the labour market, as a whole, is in an exceedingly unsettled state.

Trade continues very brisk; but the high prices that prevail are to some extent having the effect of restricting transactions to immediate requirements. At Barrow steel rails and other railway material are in special request, America being a very extensive customer. The steel works in this district are three or four times as large as they were three years ago, but the output is by no means equal to the demand.

On Thursday the county magistrates sitting at Bolton fined a man, named Thomas Fish, 40*s.* and costs for a breach of the special rules at the Park Hall Colliery, Blackrod, owned by Messrs. Dornby, Ridgway, and Hewarth. Defendant was a fireman, and because a draught made his candle to "sweat" he altered a brattice cloth, and risked the life of every man in the mine.

To-day was the day appointed for resuming, after an adjournment of three months, the enquiry at the Railway Tavern, Ince, as to the 70 deaths caused by the explosion in September last at the Moss Pits, Ince, near Wigan, belonging to Messrs. Pearson and Knowles. In opening the sitting the Coroner said he had to report to the jury one unfortunate and painful circumstance. Since he had entered the house he had received a telegram from Mr. Peter Higson, jun., stating that Mr. Peter Higson, sen., Her Majesty's Inspector of Mines for the district, was dangerously ill, and was unable to be present. He was sure that this was a matter that would be deeply regretted, and he sincerely hoped that the attack would be only a temporary one; and that Mr. Higson would again rally, and would be spared not only to complete that enquiry, with which he had been intimately associated, but for many years to come. The manager of the workmen employed in repairing the upcast-shaft—Joseph Farrington—made a statement as to how the work was progressing. The sinkers, he said, were now about 4*1/2* yards from the Nine feet mine, where the bulk of the bodies lie, and the work was still one of very great difficulty. They were not progressing at the rate of more than 2 ft. a day. The pit up to the point now reached was filled with debris, consisting of burnt bricks, metal, ashes, &c. The water used for flooding the mine was kept just above the Nine feet mouth. A little gas was making its appearance, but not much. The Coroner said there seemed a probability of coming across bodies or remains in a short time now. He suggested a further adjournment for two months, with the understanding that the jurors should be called together earlier if necessary. The jury agreed to this arrangement, and the proceedings terminated.

TRADE OF THE TYNE AND WEAR.

Ju'y 18.—The business in Coal and Coke has been more satisfactorily lately, all the principal holidays being over the output has somewhat improved; the supply, however, is still far short of the demand. The strike at Ryhope has ended by the men going in on the old terms, the matter in dispute to be settled by arbitration in the ordinary way afterwards.

At the Joint Meeting of Engineers, the paper of Mr. Cockburn, "On the Carboniferous Limestone of South Durham and North Yorkshire," is most important, bearing, as it does, on the deposits of coal and iron in that great district. It may be considered as a continuation of the practical subject introduced by Mr. Paget, as such a paper cannot fail to throw more light on the question of the quantities of coal and iron likely to be found in the Cleveland district, and also on the qualities of the various kinds of coal and iron ore found.

The paper of Mr. Bainbridge, "On the Methods of Providing against the Various Causes of Loss of Power in the Application of Compressed Air," is one of great importance. The use of compressed air for hauling and pumping underground may be expected to play an important part in coal mining in the future. It is evident that, more especially when labour is becoming daily more expensive, every possible exertion will be made to introduce machinery in place of manual labour, and compressed air as a motive power, so far as mining science has advanced, appears to be the most useful agent for effecting this purpose. It has been shown that at Ryhope this power has been conveyed a considerable distance underground, and then applied in hauling the coals, thus dispensing with the use of a large number of horses, and there appears to be no reason why the same power should not be applied in pumping water, and also in cutting coal. The cost of cutting coal by manual labour is already excessive, and may be expected to increase, and the only remedy for this is the introduction of machines for the cutting and bringing down the coal. These machines have made some progress in the southern coal districts, and also in Scotland, but hitherto they have not been successful here; but one of the Glasgow machines has been introduced here, and we shall give some account of its performance at an early date.

UNDERGROUND LOCOMOTIVES.—Several attempts have been made to introduce a machine of this kind during the past dozen years in this district, but they have been so far failures. We hear, however, that an attempt is shortly to be made by an engineer in the South of England, and sincerely hope that the scheme may prove successful.

THE COAL AND COKE FAMINE IN THE NORTH—IMPORTANT STATEMENT BY A COALOWNER.—At the Darlington Chamber of Commerce, on Wednesday, Mr. Grievson, a coalowner and iron merchant, said the reason of the extreme prices and considerable advance in coal and coke was, so far as they could see, entirely attributable to the restricted working of the miners. A reference to the pay-bills, and the amount of work done by a single man or by any number which might be taken, showed that, as a rule, the pitmen were earning no more money than at this time last year. There were a larger number of men in the district, but actually less work was being done. It might be submitted as an illustration of the state of things that when some of the Teesdale lead miners went to a colliery where there was no strike or lock-out, and where the 20 per cent. advance was being enjoyed by the workmen, but where there was restricted work, only half the quantity of coal being obtained as at the same period last year, they were called blacklegs. It was evident that there was an understanding both at the collieries and ironstone mines that with the advance in wages which had been obtained there should be an equivalent reduction in the amount of work done per man. The effect of such a decision was that the blast furnaces were making from 10 to 15 per cent. less iron than they would do if the minerals were forthcoming in sufficient quantities, and if the collieries, which were only worked to the extent of one-tenth of their capacity, were worked in an ordinary way. Of course, he did not wish to question for a moment the right of the pitmen to pursue any course they thought proper. It was simply his duty to state facts. The deductions from which seemed to him to be that the customer at the present time had very much more to pay for what he required, the coalowners, as a whole, getting upon some part of their produce 10 per cent. advance in price, upon some 20, or even 40 per cent. The consumer, at the same time, had to pay 20 per cent. in advance of wages, but beyond that he had to contend with very great loss arising from the restricted work. Any one understanding the cost of working a colliery with all its appliances would know that if but little work was done the cost was enormously increased, owing to the standard expenses being much the same under any circumstances. There was thus going on what might be termed a large amount of waste, and thus the coalowners were no better off than they were this time last year, and some were decidedly worse. In reference to the colliery he spoke about, instead of making the 25,000 tons a year contracted for, they were making 15,000 tons. Thus the contract made for 3*1/2* years would, at the present rate, last for 4*1/2* years. He could show clearly that at this colliery they were making no profit whatever, and unless any further

advance in wages was accompanied with an increase in the amount of work done, so as to lessen the standing expenses, they would certainly, if they could legally do so, stop altogether.

So far as the pitmen were concerned, they were earning about the same amount per man as twelve months ago, whilst their wives were crying out that what they had to buy was becoming more costly, and it was only to probable that with more time the men required more money to spend for themselves. They thus saw that the consumer was suffering, the coalowner was not benefited, and certainly the pitmen could not be benefited by his restricted work. Meanwhile coals were being brought by the North-Eastern Railway from the neighbourhood of Sheffield to Darlington for their own consumption, and new districts were being developed as much as possible. In all other countries it was becoming the great object to develop coal fields as much as possible, more particularly in Westphalia, where there promised to be a strong competition with this district. It seemed, therefore, only too probable that when the inevitable collapse came, with the present waste arising from restricted work, that this district would not be in anything like the position it should be to contend with the adverse time. If the miner would only make hay while the sun shines he might now provide something handsome for a rainy day, and benefit the community at large. The present extreme prices affected the consumer very much more than the coalowner, and although no sensible coalowner could desire to see extreme prices with an increase of wages, and loss by restricted work, he was bound to protect himself by advancing his prices of coal and coke where he could. He might say, in conclusion, that Mr. Bowman had mentioned to him that day that he was satisfied from good authority that not one-tenth of the coke now sold was sold at high prices.

REPORT FROM THE NORTH OF ENGLAND.

Ju'y 18.—The market at Middlesborough on Tuesday was well attended, and a brisk enquiry was made for pig-iron. Very little of this commodity, however, can be offered for sale, its scarcity being more and more felt every succeeding week. For prompt delivery nothing is changing hands under 110*s.* (No. 3), and the tendency of prices is upwards. Considerable difficulty is still experienced in consequence of the short supplies of raw material to the blast-furnaces, and it is seriously contemplated by some proprietors to blow out some portion of their furnaces, in order to keep the remainder in full blast. At the present time several furnaces in the district are blowing little more than half-blast. Great complaint is made by owners of steam-vessels, but more particularly of sailing craft, of the loss caused to them in having to wait for pig-iron cargoes, and frequent and heavy claims are continually being made on this account. In finished iron departments, apart from the loss of time through the irregularity with which the men attend work, a considerably larger tonnage could be turned out if pig metal was more plentiful. The demand for manufactured iron continues very large, and in some branches enquiries are more numerous and heavier than they have been during the past few weeks. For railway requirements specifications are coming to hand pretty freely, and a fair amount of work is reported to have been secured by Cleveland firms. The unsettled state of the labour market, however, hinders the masters from making contracts far ahead. For shipbuilding and engineering iron there is also active demand.

A new branch of industry in Cleveland was inaugurated on Tuesday last by the opening of Messrs. Jones Brothers and Co.'s new cut-nail works adjoining their present Ayrton Rolling-Mills, at Middlesborough. The works are laid out to produce about 100 tons of nails per week, the machinery now in operation being capable of manufacturing something like 40 tons. The opening, which took place immediately at the close of Tuesday's market, was witnessed by a large number of gentlemen, who were afterwards entertained at luncheon by the proprietors. Speeches were made by Mr. Isaac L. Bell, Mr. Edward Williams, Mr. Danks, Mr. Jones, and others, and the proprietors of the new works were highly complimented upon their new undertaking.

An example of the Narrow Gauge Suspension Railway is in successful daily operation from the Parkhouse Hematite Iron Ore Mines, near Furness Abbey, to the Rothe Station, on the Furness Railway, North Lancashire. This line, of about 1 mile in length, is upon inclines averaging 1 in 42, and curves of from 5 to 10 chains radius, over side-long and somewhat broken ground, and at various elevations from 3 to 22 feet. The line is worked by a stationary engine and endless wire-rope, and is capable of carrying a traffic of 100,000 tons per annum. The wagons carry each 1 ton of iron ore; and small carriages with eight passengers are run with perfect steadiness and safety at a speed of 15 miles per hour. It is claimed for these little railways that they are not only of great value for the conveyance of minerals and as feeders to main lines, but also that in time of war they could be made so as to follow up an army in the field, and be of the utmost importance in conveying military and commissarial stores and provisions from the base of operations. The machinery was constructed by Messrs. Manning, Wardle, and Co. of the Boyne Engine Works, Leeds, a firm which perhaps has turned out successfully more novel machines than any similar establishment in the district. They have now designed and built a miniature locomotive engine for running at the military camp at Aldershot, on what is known as the new "suspension" system—a line of railway, 18 in. gauge, of a novel and ingenious character, patented by Mr. J. B. Fell, whose name is widely familiar through his connection with the Mont Cenis Mountain Railway.

COLLIERY ENTERPRISE IN NEW SOUTH WALES.

The exorbitant demands of colliers having resulted in a constantly increasing price for coal, consumers anxiously look around for new sources of supply, in the hope of lessening the drain upon our British collieries to the greatest possible extent, and thus restoring prices to their former position. The idea of bringing German coal into the London market is by no means a new one, and existing rates would appear to be high enough to justify an effort in that direction. It has been urged, again, that by an amount of organisation by no means impracticable United States coal could be remuneratively laid down at all ports in the Atlantic at which commercial vessels are in the habit of taking in English coal. And the opinion that Australia will in a very short time be in a position to command all the markets of the East, by supplying a better article at a lower price than is possible to the English coalmasters, is now so general that arrangements have already been made by some of the capitalists interested in the New South Wales coal fields to provide the necessary facilities for very extensive shipments from the Hunter. The latest advices from South Australia bring the gratifying intelligence that English is gradually receding before the supplies from the colonial markets, and that New South Wales coal is readily obtainable afloat at Adelaide at 18s. 6d. to 19s. 6d. per ton. Now, at present English coal could not be laid down there except at considerably more than twice that price; and, as the British Government experiments have proved beyond question that the quality of the New South Wales coal is fully equal to that of the best purchasable in Durham and Northumberland, in England, there can be no reason why British coal should continue to be shipped either to Australia or the East; and if some additional English capital were invested in New South Wales collieries such shipments might be almost entirely prevented.

The collieries of the Australian Agricultural, Scottish Australian, Waratah, and other companies at and near Newcastle, N.S.W., are well known, and that the number of pits in active operation could be largely increased without making colliery working in the colony less remunerative to those engaged in it is acknowledged. The village of Hexham is rapidly growing into a town, and the entire district to the south-west of the Hunter, between Hexham and Newcastle, appears to be one large and valuable coal field. The collieries already mentioned are at present in profitable operation, and it is now proposed to augment the supply of coal by securing the development, either under lease or otherwise, of the Wentworth coal field, 4166 acres in extent, which is situated about half-a-dozen miles from the Hexham Station and the Hunter, and about 15*1/2* miles from Newcastle. The coal measures on the Wentworth property are described as being regular, lying nearly horizontal, and apparently not much troubled with faults or dykes. Mr. ALEXANDER LINDSAY, who has carefully inspected the property, states that the Wentworth coal field is bounded on the east by the Co-operative, on the south by the Wallsend and Mimmi, and on the west by the Mimmi and Scotts, which collieries are working the same seam as occurs in Wentworth. The quality of the seam improves as it goes to the rise of the collieries mentioned, and it is 2320 acres on the rise that is included in the Wentworth field, wherein the seam can easily be wrought by an open drive or tunnel from surface, and he considers the field could be wrought more cheaply than most of the collieries in the Hunter River district. The dip of the seam is about 2° east of south, which is the general dip of most of the seams in the district, and the pitch in general is not more than just carries the water away from the workings. The thickness of the seam averages 8 ft., of which 5 ft. 6 in. would be clean coal, available to be sent to market on the Mimmi side, but he thinks that towards the Co-operative and Wallsend the seam will increase in thickness, and remain as good in quality. He estimates the seam to contain 17,642,692 tons within the field.

The coal is strong, and of first-class quality for shipment; burns brightly, generates steam well, and makes very little clinker and reddish ash. Pit timber, and all sorts of timber required for sleepers, bridge girders, &c., can be had in any quantity, the supply of other seams are visible, but boring is necessary to permit of a reliable section being made. The subjoined is a section at Back Creek Mimmi, and on the property:

	Ft. in.	Ft. in.
Red clay	10	Shale
Conglomerate	5 0	Fossiliferous clay
Shale	3 0	Coal
Chert	1 0	Vol. shale
Sandstone	11	Bast and coal
Blue shale	3 0	Soft fireclay, streaks of coal
Fire-clay	3 0	Top coal, left for roof
Sandstone	11 0	Top coal
Ironstone	1 3	Parting
Shale	1 3	Centre coal
Sandstone	11 0	Parting
Shale	6 0	Bottom coal
Grey post	11 0	Floor (sandstone)

The approach to the Wentworth field from the Great Northern Railway can be had either by the Wallsend Railway, or the Mimmi line, the latter appears to be most advantageous, as the expense of connecting would be smaller, and the curves and gradients of the Mimmi line are the more favourable. With regard to the value of the other seams mentioned as requiring to be proved by boring, interesting to refer to the complete sections of the Newcastle coal seams by the Rev. W. B. CLARKE and Mr. J. MACKENZIE (now Government Examiner of Coal Fields), published in the Supplement to the *Mining Journal* of October 17, 1863, and to the fact that Mr. MACKENZIE estimates that whilst in North Staffordshire, England, they have but 1 foot of coal for every 53 feet of rock and shale, they have in New South Wales 1 foot of coal for every 32 feet of other strata; so that if a judicious selection of place in the field be made there would seem to be good reason to anticipate great success.

THE METAL TRADE.

Parliamentary Return of all Imports of Copper and Copper Ore, Tin and Tin Ore, Lead and Lead Ore, Spelter, and Zinc for twelve months, to Dec. 31, 1871.

COPPER.—Countries from which imported:

	a.	b.	c.	d.
Russia	Tons
Sweden	85	60	—	26
Norway	4,299	28	18	4
Denmark	70	—	97	10
Germany	291	1	55	26
Holland	17	8	17	1,944
Belgium	—	—	10	4,521
Channel Islands	—	—	3	7,589
France	832	2	124	526
Portugal	2,895	80	30	8,094
Spain	8,590	—	—	294
Gibraltar	—	—	4	—
Italy	4,884	—	23	60
Turkey	29	—	265	67
Egypt	—	—	14	—
West Africa	28	—	1	120
Cape of Good Hope	5,663	746	6	37
Mauritius	—	—	—	411
British India	—	—	14	—
Philippine Islands	—	—	—	201
China	—	—	5	151
Japan	—			

JULY 20, 1872.]

THE MINING JOURNAL.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the EAST CORNWALL SAINT VINCENT MINING COMPANY (LIMITED).—The Registrar of this Court has appointed SATURDAY, the 27th day of July instant, at Eleven o'clock in the forenoon, at his office at Truro, to SETTLE THE LIST OF CONTRIBUTORIES of the ABOVE-NAMED COMPANY, now made out and deposited at the said office.

FREDERICK MARSHALL, Registrar of the said Court.

Dated the 17th day of July, 1872.

The Companies Act, 1862.

SOUTH WALES.—THE POWELL UNITED SILVER-LEAD MINING COMPANY (LIMITED). IN LIQUIDATION.

MESSRS. TOPLIS AND HARDING WILL SELL, BY AUCTION, at the Auction Mart, Tokenhouse-yard, on Wednesday, the 24th July next, at Two o'clock punctually, by order of the Liquidator, the VALUABLE MINING PROPERTY, known as

THE POWELL UNITED SILVER-LEAD MINES,

Situates in the parish of LLANBADARNAWR, about ten miles from the shipping port of ABERYSTWITH, CARDIGANSHIRE, in the heart of a rich mining district. The mines are under a large surface area, and are worked from three shafts, of the depths of 26, 72, and 32 fathoms, by a steam-engine of 25-horse power, and the results during the last 3½ years have been of the most satisfactory character, the ore being of the richest description, the average returns being about 40 tons per month, and the last price realised £12 6s. per ton.

To render this mine one of the best paying in the district an outlay of capital is required, in order to economise the working expense, and increase the returns.

The leases have an unexpired term of about 17 years, at a small royalty.

May be viewed and particulars had of T. W. HANDLEY, Esq., the Liquidator, 61, Princess-street, Manchester; of GEORGE BRETT, Esq., Solicitor, Manchester; at the Mart; and of the Auctioneer, 16, St. Paul's Churchyard, London, E.C.

WADEBRIDGE, CORNWALL.

PRELIMINARY NOTICE of an important SALE of about THIRTY-FIVE TONS of best STAFFORDSHIRE BAR IRON; FIFTEEN TONS WELSH; FIVE TONS SHEET IRON; THIRTY TONS useful WROUGHT and CAST IRON, including SCRAP; TWO ORE CRUSHERS; 26 and 17-inch ROLLERS; MINE MATERIALS; STEEL; CHAIN; IRONMONGERY; NAILS; SHIPBUILDING MATERIALS; 200 qrs. of prime mixed AMERICAN MAIZE, &c., &c.; 40,000 feet of DEALS, BATTENS, and BOARDS; large quantity of ENGLISH OAK, ELM, ASH, PLANK, &c., &c.

MR. W. H. MALLETT has received instructions from T. MARTYN, General Merchant, Wadebridge (who declines business in favour of his Sons), TO SELL THE WHOLE BY PUBLIC AUCTION, on his premises, without reserve, on Tuesday, the 30th, and Wednesday, 31st inst.

Further particulars will appear in Catalogues and future advertisements.

Dated, Wadebridge, July 2, 1872.

LEICESTERSHIRE.

THE LINDRIDGE ESTATE.

A very CHOICE and VALUABLE FREEHOLD RESIDENTIAL PROPERTY, free from tithe, comprising a modern, well-appointed, moderate-sized mansion or hunting box, called Lindridge House, replete with all the most recent improvements, placed in well-arranged pleasure grounds, and surrounded by 88 acres of park-like pastures, studded with ornamental timber, intersected by a trout stream, and approached by a carriage drive, with ornamental entrance lodge. The house is substantially built of selected white brick, with freestone dressings, and is most complete in all its details, having been almost rebuilt within the past three years at very considerable cost. The stabling comprises excellent accommodation for five horses, with large carriage house, harness room, &c., a gardener's cottage, a conservatory, a greenhouse, &c. The mansion, premises, and homestead are supplied with an abundance of pure water, conveyed through pipes by gravitation, from springs which rise on the estate, into large cisterns in the roof, and both hot and cold water are laid on throughout. The property comprises 303 acres, divided into arable and pasture, and interspersed with several ornamental woods (in hand), which afford good cover for game. There are a first-rate new farmhouse and covered homestead, forming a model farm, and several cottage dwellings. The estate is situated in one of the best hunting districts in the kingdom, within easy reach of the Atherton, Mr. Talby's foxhounds, and the Quorn and Talybont can be reached by train. It is about eight and a half miles west of Leicester, a journey of about two and a half hours from London by frequent fast trains from St. Pancras, ½ mile from Desford Station on the Leicester and Burton line of the Midland Railway, easily accessible from all the important towns of the midland and northern counties, and from all parts. It is believed that coal extends under the estate. The nearest collieries at present at work are at Bagworth and Istock, distant 2 and 5 miles respectively from the property. Mr. Woodward, the eminent mineral surveyor of Derby, has advised the owner that the minerals will some day prove of great value, and that the present value is a large sum. A purchaser may, therefore, look forward to making a large profit from the coal at some future day.

MESSRS. DANIEL SMITH, SON, AND OAKLEY, have received full instructions to SELL the above valuable FREEHOLD and attractive RESIDENTIAL PROPERTY BY AUCTION, at the Mart, Tokenhouse-yard, E.C., on Tuesday, August 6, at Two o'clock precisely.

Particulars may be obtained of Messrs. BARBER and CURREY, solicitors, Derby; of THORNHILL H. HEATHCOTE, Esq., solicitor, 20, Whitehall-place, S.W.; at the Mart; and of the auctioneers, 10, Waterloo-place, Pall Mall, S.W.

WARRINGTON.

In the parishes of Ansley and Nuneaton.

478 ACRES of FREEHOLD LAND in FARMS, with the valuable minerals under the same, a portion being very near the town of Nuneaton, and the other portion within four miles and adjoining the village of Ansley. The Midland Railway from Birmingham to Nuneaton runs through the principal farms on the property, and other lines are projected to pass through the district. One farm is let on lease, and the whole of the residue is occupied by yearly tenants. The minerals under these freshold farms, with certain portions of the manor of Stockingford and Nuneaton, form part of the nearest coal fields to the metropolis, and, although at present undeveloped, hold out a certain assurance of profit, if undertaken with judgment and industry. From the present high price of coal these minerals will command themselves to the notice of speculators, and will command the attention of all interested in the profitable working of coal mines. Large collieries are now at work in the immediate neighbourhood, and others in progress of formation.

MESSRS. DANIEL SMITH, SON, AND OAKLEY have received instructions from the Trustees of the late Andrew Thompson, Esq., to arrange the WHOLE of this VALUABLE LANDED and MINERAL FREEHOLD PROPERTY FOR SALE, BY PRIVATE CONTRACT, in various lots. Plans and particulars may be had of Messrs. HUNTER, GATKIN, and HUNTER, Solicitors, 9, New-square, Lincoln's Inn; of JOHN THOMPSON, Esq., Badminton; of Messrs. DANIEL SMITH, SON, and OAKLEY, Land Agents and Surveyors, 10, Waterloo-place, Pall Mall, London, S.W.

STAFFORDSHIRE.

IMPORTANT MINERAL ESTATE.

PRELIMINARY ADVERTISEMENT.

MESSRS. CHESSHIRE AND GIBSON have received instructions from the Proprietors to OFFER FOR SALE, BY PUBLIC AUCTION, in September next, at a time and place to be named in future advertisements, a VERY VALUABLE MINERAL PROPERTY, consisting of about 290 acres of FREEHOLD and COPYHOLD LANDS, in BILSTON, DARLASTON, and WILLENHALL, in the county of STAFFORD, with the unworked COAL and IRONSTONE MINES under the same, some portions of which are now the subject of extensive mining operations by Messrs. BRADLEY and SOUTHERN, Mr. HAWKINS, Messrs. SAMUEL GROUTON and Sons, and others, and produce mine rents and royalties amounting to nearly £3000 a-year, and will be sold subject to, but with the benefit of, the existing mining leases and other tenancies.

Detailed particulars, with plans, will shortly be published. In the meantime, further information may be obtained of MR. MARSHALL, Solicitor, Darlaston; Mr. WOODCOCK, Land Agent, Wolverhampton; Mr. E. PUGH, Bilston; or to the Auctioneers, 93, New-street, Birmingham.

FIRST-CLASS COLLIERIES FOR SALE.

PRELIMINARY ADVERTISEMENT.

THE TILA COCH COLLIERIES, in full working order, in the parish of YSTRADYFODWY, GLAMORGANSHIRE, containing all the best veins of HOUSE and STEAM COAL in SOUTH WALES, will shortly be OFFERED, with MACHINERY and PLANT, FOR SALE, BY PUBLIC AUCTION.

For further particulars, apply to MR. BENJAMIN MATTHEWS and MESSRS. INGLEDEV, INC., Solicitors, Cardiff; to MESSRS. FIELD, ROSCOE, and CO., Solicitors, 36, Lincoln's Inn-fields, London; or to MESSRS. INGLEDEV, INC., and GREENING, Solicitors, St. Benet's-chambers, Fenchurch-street, E.C.

GEORGEHAM, NORTH DEVON.

TO BE SOLD, BY PRIVATE CONTRACT, a VALUABLE ESTATE, known as

BUCKLAND,

In the parish of GEORGEHAM, DEVON, midway and on the line of railway which is now being made between the towns of Barnstaple and Ilfracombe, containing about 181 acres, lying in the centre of a district abounding in iron ore, and which is now being extensively raised on the properties immediately adjoining on the north-east and west sides, and the lodes are believed to pass under this property.

The estate is held by a tenant under a lease for 21 years, which expires at Lady-day, 1874, in which the minerals are excepted, but earlier possession may be had by arrangement with the tenant.

Price, and any further information, may be obtained on application to MR. GEORGE BROWN, Land Agent, Barnstaple.

Dated Barnstaple, July 17th, 1872.

TO CAPITALISTS.

FOR SALE, the LEASE, or SETT, of one of the best HEMATITE IRON MINES in CORNWALL, capable of returning from 500 to 5000 tons of ore a month: 60 per cent. metallic metal, free from sulphur and phosphorus, with about 2 per cent. of manganese, with every facility of increasing the returns. The ore can be delivered in Wales at a cost of 10s. per ton; selling price 2s. to 3s. per ton.—Apply, by letter, to "B. and Co.", care of the Editor of the MINING JOURNAL, 26, Fleet-street, London, E.C.

Tenders for Coal and Slag.

THE TALARGOCH MINING COMPANY (LIMITED) INVITE TENDERS for the DELIVERY, at Meliden Station, of ONE HUNDRED AND FIFTY TONS of COAL, and FIFTY TONS of SLACK, weekly, from the 1st of August to the 31st of March next.

Tenders addressed, "Directors of Talargoch Mining Company (Limited)," near Rhyl, to be forwarded before the 24th instant.

The directors do not bind themselves to accept the lowest or any tender.

W.M. SMITH, Secretary.

TO COAL MERCHANTS AND OTHERS.

THE TUNBRIDGE WELLS LOCAL BOARD are READY to RECEIVE TENDERS for ONE YEAR'S SUPPLY of SCREENED TANFIELD MOOR COALS, estimated at about 300 tons.

The same to be delivered at the Waterworks at Tunbridge Wells, in accordance with the orders of the engineer.

Tenders to be sent in by Saturday, the 3d August, 1872.

The lowest or any tender will not necessarily be accepted.

Address for further particulars to—

THOS. LEWIS, Clerk to the Local Board.

Town Hall, Tunbridge Wells, 18th July, 1872.

FOR SALE, HAYCASTLE COLLIERY.

TO BE SOLD, BY PRIVATE TENDER, all that VALUABLE COAL MINE, called the

HAYCASTLE COLLIERY.

With all the WORKING PLANT and MACHINERY belonging thereto. The royalty, which comprises an area of about 250 acres, is situated about ¾ miles north of Whitehaven, and 2½ south-east of Harrington; is held under lease from Lord Lonsdale for a term of 21 years, of which 17 or thereabouts are unexpired. There are several valuable seams of first-class coal, varying in thickness from 2 ft. upwards from which a large output might be obtained on a comparatively small outlay.

The colliery has been in operation several years, working the 3 feet seam, a considerable portion of which remains unworked; and a new seam of 2 feet thick has just been won, which is expected to lead to the winning of the Main and Metal Band Seams.

The fixed and royalty rents are moderate.

The property offers a favourable opportunity to any parties inclined to enter into coal mining. It is well situated for carrying on a large business, the demand for coal being greatly on the increase, from the extension of iron smelting works and other manufactories in the neighbourhood.

Further information may be obtained on application to MR. RALPH TATE, the manager at the colliery, where plans of the workings and reports from mining engineers of the highest standing may be inspected. Sealed tenders (marked "Tender, Haycaste Colliery") may be forwarded to the offices of the undersigned, not later than the 1st of August. The vendors do not bind themselves to accept the highest or any tender.

J. AND J. R. NICHOLSON,

Stock and Share Brokers, 18, Church-street, Whitehaven; 50, Castle-street, Carlisle.

Whitehaven, July 10th, 1872.

Whitehaven; 50, Castle-street, Carlisle.

RARE OPPORTUNITY FOR MAKING A FORTUNE.

TO BE SOLD, PART or ENTIRE (former preferred) of a COLLIERY ROYALTY in NORTH WALES, bordering on the London and North-Western Railway, and close to a shipping port. There are several shafts partially sunk, some requiring to be sunk still deeper, but operations stopped for want of capital. There are four seams of good house and steam coal proved in an area upwards of 400 acres of surface. Holder will sell the entire, including the paesent plant (not sufficiently powerful for sinking further) for £4000, but would prefer taking a PARTNER, who would advance the necessary capital for half profits, which in the present state of the coal trade are almost fabulous.

Address, "Vulcan," care of Mr. Watson, 15, Fenwick-street, Liverpool.

GLAMORGANSHIRE.

VALUABLE RED HEMATITE MINE, situate in the parish of WENVOE, four miles from CARDIFF, comprising the VALUABLE RED HEMATITE ORE under a portion of the WENVOE ESTATE, containing about SEVENTY ACRES, and held on lease for a term of 32 years, at a royalty of 1s. per ton. About 30,000 tons of ore has been worked, almost entirely from crop workings, as the proprietors have not put up any machinery for drawing or raising mine from the deep, which (unless previously disposed of by private contract) will be SOLD BY AUCTION, in One Lot, by Mr. ROBERT EVANS, at the Angel Hotel, Cardiff, on Wednesday, the 24th day of July, 1872, at Two for Three o'clock in the afternoon precisely.

Particulars and conditions of sale may be obtained of Messrs. TUCKER, NEW, and LANGDALE, Solicitors, 4, King-street, Cheapside, London; and of Mr. ROBERT EVANS, Auctioneer, Bridgend.

CLAY SETT.

AND EXCELLENT CLAY SETT is open to be granted on an estate in the parish of CALSTOCK, CORNWALL, where there is an unlimited bed of superior FIRE CLAY.

Bricks of a superior quality were manufactured from this bed many years ago. Rare facilities for carrying on extensive brick operations are here afforded, and additional accommodation is now rendered by the mineral railway which crosses the estate, to which there is easy access.

Persons desirous of treating for the same are requested to make applications to—

MESSRS. WARD and CHOWEN,

Land Agents and Surveyors, Tavistock, Devon.

FOR SALE, a LEAD MINE in FLINTSHIRE, NORTH WALES. It has hitherto been worked as a private venture by two gentlemen. This is an excellent opportunity for anyone wishing to form a joint-stock company, as the property will bear the strictest investigation.

For particulars, apply to Mr. RALPH ASHTON, 59, Piccadilly, Manchester.

CORNWALL.

FOR SALE, a FREEHOLD PROPERTY in this favourite Mining County, in which are some indications of a good mine.

For particulars, apply to the proprietor, Dr. H. E. SARGENT, Polyphant, Launceston.—July 15, 1872.

TO IRONMASTERS.—IRON ORE FOR SALE.—ANALYSIS—"METALLIC IRON, 35-45 PER CENT." Quantity unlimited. Will be delivered at Newport or Cardiff.

Offers at per ton (2240) to be addressed "A. D.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

SLATE AND SLAB QUARRIES

ON SALE, near PORT MADOCH and FESTINIOG, well situated, and with tram and railway communication to Port Madoch.

Particulars, as to royalty and leases, &c., can be had upon application to JAMES H. ATHERTON, Accountant, 4, Union-buildings, North John-street, Liverpool; or to JOSEPH KELLOW, Esq., C.E., 2, Park-terrace, Port Madoch.

TO IRONMASTERS, &c.

TO BE DISPOSED OF, the LEASE, for 42 years, of a VALUABLE IRONSTONE ROYALTY, in the heart of the CLEVELAND DISTRICT, with shafts sunk, and the stone opened out, and ready for immediate realisation—being within 20 yards of the main line of rails to Middlesbrough; its position and instant profitable working is unquestionable.

Apply to Mr. WATSON, 15, Fenwick-street, Liverpool.

SHORTLY TO BE DISPOSED OF, TWO BEAM ENGINES, each complete, now working over 300-horse power, indicated. May be seen at work.

For further particulars, and permission to view, apply to Messrs. MARSHALL and Co., Shrewsbury.

COAL FIELDS OF NEW SOUTH WALES.

THE TRUSTEES OF LARGE and VALUABLE COAL FIELDS, situated near NEWCASTLE, are PREPARED to LEASE THE SAME, on royalties or otherwise.

Full particulars as to extent, seams of coal and quality, and other information may be obtained on application to Mr. C. J. MANDER, 9, New-square, Lincoln's Inn, London. None but principals will be treated with.

COAL FIELD.

To BE LET, the CARLTON FIELD OF COAL, situate two miles from BARNESLEY, the property of the Right Hon. Lord WHARNCLIFFE.

JULY 20, 1872

ALEXANDER SMITH,
CONSULTING ENGINEER, AGENT, AND VALUER
OF PLANT AND MACHINERY.
28, EXCHANGE, BIRMINGHAM,
AND
BOURNE STREET AND CASTLE STREET, DUDLEY.
ESTABLISHED 1848.

JOHN BOURNE AND CO.
ENGINEERS, SHIPBUILDERS, AND CONTRACTORS,
BLOWING ENGINES, WINDING ENGINES,
Bourne's Patent Spherical Governors, Bourne's Patent Feedwater Heaters,
Bourne's Patent Gas Furnaces, Bourne's Patent Coal-dust Furnaces,
PUMPING ENGINES, STEAM BOILERS,
66, MARK LANE, LONDON.

WHEATLEY KIRK & PRICE,
(ESTABLISHED 1850),
AUCTIONEERS AND VALUERS
OF EVERY DESCRIPTION OF
COLLIERY PLANT, IRONWORKS, &c.
Estimates for Periodical Surplus Sales, Annual Valuations, &c.
ALBERT SQUARE, MANCHESTER.

McNIEL, MULLER, AND CO.,
MANCHESTER,
SOLE AGENTS FOR "S. B. HEMATITE," PIG IRON
"CLAY LANE,"
AGENTS FOR JACKSON, GILL, AND CO., IMPERIAL
IRONWORKS, NEAR MIDDLESBOROUGH;
DARLINGTON WAGON COMPANY, DARLINGTON.

SCOTCH, HEMATITE, STAFFORDSHIRE, DERBYSHIRE, FOREST OF
DEAN, COLD BLAST AND REFINED PIG IRON, PUDDLED BARS AND
BAR IRON, STEEL, SPelter, TIN, COPPER, LEAD, SHEETS, ORES, &c.

HANDASYDE'S BOILER COMPOSITION

(C. H. HANDASYDE AND CO., DALKEITH, N.B.)

For the REMOVAL and PREVENTION of INCRUSTATIONS in STEAM
BOILERS, it is extensively used among Collieries, Ironworks, and Mills in
Scotland; also, with great success, on the North British
Railway Company's Locomotives.

Net price, 15s. per cwt., carriage paid; 10 per cent. off 1 ton orders; free
from acids.

A TRIAL SOLICITED.

SPECIALLY RECOMMENDED for LOCOMOTIVES, being completely soluble
in water, and only requires to be put into the tender.

INCREASED VALUE OF WATER POWER

The extraordinary advance in the price of coals has directed more attention to
water power, and to the best manner of applying it. For many years it has been,
to a great extent, neglected and undervalued. One great objection to it has been
the variable nature of most streams in these countries, having abundance of water
during the winter half-year, and very little in the dry season. No kind of wheel
hitherto known was able to give the proper proportion of power from the smaller
quantities of water, so that it became the practice very generally to use steam en-
tirely during the summer half of the year, letting the water go to waste. This is
now completely prevented, and the full available power can be obtained from a
stream at every season by using

MacADAM'S VARIABLE TURBINE.

This wheel (which is now largely in use in England, Scotland, and Ireland) is the
only one yet invented which gives proportionate power from both large and small
quantities of water. It can be made for using a large winter supply, and yet work
with equal efficiency through all variations of quantity down to a fifth, or even less
if required. It is easily coupled to a steam-engine, and, in this way, always assists
it by whatever amount of power the water is capable of giving, and therefore,
saves so much fuel.

This turbine is applicable to all heights of fall. It works immersed in the tail-
water, so that no part of the fall is lost, and the motion of the wheel is not affected
by floods or back-water.

References to places where it is at work will be given on application to the makers.

MacADAM BROTHERS & CO.,
ENGINEERS, BELFAST.

**THE PATENT SELF-ACTING MINERAL DRESSING
MACHINE COMPANY (LIMITED).**

T. CURRIE GREGORY, MINING ENGINEER.
OFFICES, -62, ST. VINCENT STREET, GLASGOW.

This company grant licenses, under their patents, for the use, singly or in com-
bination, of the most approved machinery for dressing ores, comprising Stamps,
Jiggers, Side-blown Percussion Tables, Classifiers, and Builders.

The whole in combination are in successful operation at Rhoswydol Mines, Mach-
ynlleth, the Bog Waste, Shropshire, Darren and Gertrude Mines, Cardiganshire.
The Jiggers are largely used at the Van, Caldebeck Felt Mines, and at many
mines, with unqualified success.

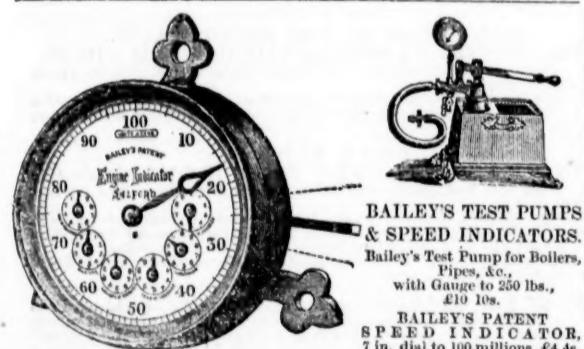
Self-acting Floors are in course of construction at various mines in England and
Scotland, regarding which Mr. GREGORY will be pleased to give information, an-
swer all enquiries, and give orders for inspection.

Mr. GEORGE GREEN, of Abergavenny, the company's mechanical engineer, is
prepared to give designs and estimates, or contract for the supply of machinery,
and for the laying out of floors.

He is doing a large business in the supply of Dressing Machinery for the treat-
ment of Gold and Silver Ores in Foreign Parts, and all classes of ores at home.

He has devoted himself to the perfecting of Self-acting Dressing Machinery, and
has, by his inventions, greatly conduced to the success of the system.

T. CURRIE GREGORY, Secretary.



(In order, say if for reciprocating or rotary motion.) Used for Pumping
Engines, Winding Purposes, &c.

J. BAILEY & CO., STEAM GAUGE MAKERS AND BRASS FOUNDRERS,
ALBION WORKS, SALFORD, LANCASHIRE.

**DEATH OR INJURY FROM ACCIDENT,
WITH THE CONSEQUENT
LOSS OF TIME AND MONEY,
PROVIDED FOR BY A POLICY OF THE
RAILWAY PASSENGERS' ASSURANCE COMPANY,
AGAINST ACCIDENTS OF ALL KINDS.**

An annual payment of £3 to £5 insures £1000 at death, or an allowance at the
rate of £6 per week for injury.

£650,000 have been paid as compensation—

One out of every twelve Annual Policy Holders becoming a claimant each year.
For particulars, apply to the Clerks at the Railway Stations, to the Local Agents,
or at the Offices,—

64, CORNHILL, and 10, REGENT STREET, LONDON.

WILLIAM J. VIAN, Secretary.

**ROYAL CORNWALL POLYTECHNIC SOCIETY,
FALMOUTH.**

THE FORTIETH ANNUAL EXHIBITION will OPEN at the
POLYTECHNIC HALL, FALMOUTH, on WEDNESDAY, August 21, 1872.
MEDALS and PRIZES will be awarded in MECHANICS, FINE ARTS, PHOTOGRA-
PHY, and other departments.

Intending exhibitors should at once apply for forms, and all other information
to the Secretary, J. H. COLLINS, F.G.S.

Polytechnic Hall, Falmouth.

THE IRON AND STEEL INSTITUTE.

MEETING IN GLASGOW, AUGUST 6, 7, 8, AND 9, 1872.

GENTLEMEN desirous of EXHIBITING ARTICLES of
INTEREST to the IRON and STEEL TRADES, or of COMMUNI-
CATING PAPERS, are requested to forward particulars to the undersigned, from
whom may be obtained programmes of the proceedings, and other particulars.

JNO. JONES, General Secretary.

Royal Exchange, Middlesbrough.

BRISTOL MINING SCHOOL.

THIS SCHOOL RE-OPENS ON MONDAY,
JULY 29TH, 1872.

For particulars, apply to the Mining Master.—
MR. JOHN MUNRO, Associate in Engineering,
Royal College of Science,
19, Perry-street, Stapleton-road, Bristol.

GLASGOW AND THE HIGHLANDS.

ROYAL ROUTE, VIA CRINAN AND CALEDONIAN CANALS,
by Royal Mail steamer IONA, from GLASGOW at 7 A.M., and GREEN-
OCK at 9 A.M., conveying passengers for OBAN, FORT WILLIAM, and INVER-
NESS, daily.

For sailings to GLENCOE, GAIRLOCH, ROSS-SHIRE, STAFFA, IONA,
MULL, SKYE, LEWIS, and WEST HIGHLANDS, see bills, with maps and
tourist's fares, free, of J. CAMDEN HOTTON, Bookseller, 74 and 75, Piccadilly,
London; or by post on application to DAVID HUTCHESON and Co., 119, Hope-
street, Glasgow.

FOR SALE, a high class 25-horse power PORTABLE STEAM
ENGINE; also, a 16-horse power, with or without reversing gear.

FOR SALE, several first-class second-hand PORTABLE STEAM ENGINES,
in excellent order.

PIT WINDING GEAR made at a short notice suitable for portable engines.

FOR SALE, a first-class MORTAR MILL.

Apply to BARROWS AND STEWART, ENGINEERS, BANBURY.

FOR SALE, separately, at reduced prices, the VALUABLE
TOOLS and OTHER APPLIANCES used at New Dock Works, Leeds, in
the manufacture of railway plant, wagon and carriage building, general engi-
neering, &c., &c.

For prices and particulars, apply to Mr. JAMES POWELL, Consulting Engineer
and Valuer of Engineering Plant, &c., 80, Basinghall-street, Leeds.

PORTABLE ENGINES, of all sizes, READY FOR
IMMEDIATE DELIVERY.
Apply to Mr. STEPHEN LEWIN, Engineering Works, Poole, Dorset.

RAILWAY CARRIAGE COMPANY (LIMITED).—
ESTABLISHED 1847.
OLD BURY WORKS, NEAR BIRMINGHAM.

MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY
DESCRIPTION of IRONWORK.

Passenger carriages and wagons built, either for cash or for payment,
over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES, OLD BURY WORKS, NEAR BIRMINGHAM.

LONDON OFFICES, -7, GREAT WINCHESTER STREET BUILDINGS.

THE BIRMINGHAM WAGON COMPANY (LIMITED)
MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for
HIRE and SALE, by immediate or deferred payments. They have also wagons
for hire capable of carrying 6, 8, and 10 tons, part of which are constructed speci-
ally for shipping purposes. Wagons in working order maintained by contract.

EDWARD FOWLER, Sec.

WAGON WORKS, SMETHWICK, BIRMINGHAM.

* * Loans received on Debenture; particulars on application.

**STAFFORDSHIRE WHEEL AND AXLE COMPANY
(LIMITED),**
MANUFACTURERS of RAILWAY CARRIAGE, WAGON, and CONTRAC-
TORS' WHEELS and AXLES, and other IRONWORK used in the CONSTRUC-
TION of RAILWAY ROLLING STOCK.

OFFICES AND WORKS,
HEATH STREET SOUTH, SPRING HILL, BIRMINGHAM.

TO MINING ENGINEERS AND AGENTS.

MR. BEWICK, C.E., will be glad to receive COMMUNICATIONS
from ENGINEERS and AGENTS practically acquainted with MINING
PROPERTY and WORKS who are prepared to manage, inspect, and report upon
such at home and abroad.

NO. 2, WESTMINSTER CHAMBERS, VICTORIA STREET, LONDON, S.W.

M. R. E. CAVENDISH TAHOULDIN,
STOCK AND SHARE DEALER,
13 and 14, CORNHILL, LONDON, E.C.; and CLAREMONT STREET,
SHREWSBURY.

Railway, Bank, Dock, Insurance, Canal, Mining, Steamship, and every other
description of Shares bought and sold at net prices.

Telegraphic Messages to buy or sell Railway, Bank, Mine, and other Shares and
Stocks punctually attended to at net prices for cash, or for fortnightly settlements,
with advice as to purchases or sales.

The close proximity of Mr. T. T. T. to London offices to the Stock and Mining Exchanges
enables him to execute all orders entrusted to him with dispatch, and to the best
advantage of his clients, while his local knowledge acquired on the spot places him
in a position to give the latest and most reliable information to his customers.

NOTICE.—Mr. TAHOULDIN's Shropshire and Welsh Mining Circular for July
will shortly be ready. Immediate application should be made.

FOR SALE:—

90, Aberduffman, 25s. 50 Fortescue, 30s. 10 Plymlimon, £1.

5 Flagstaff, £17. 20 Rookhope Valley, £4.

50 Bog, 45s. 10 Last Chance, par. 10 Roman Gravels, £17 1/2.

10 Cwm Yron. 100 Lilywernog, 25s. 10 South Aurora, 35s.

10 East Van, £8 1/2. 40 New Hington, 30s. 15 Van Consols, £4.

20 East Chiverton, 15s. 5 North Lovell, £4. 30 West Tankerville, £23 1/2.

15 East Liangyng, £3 1/2. 20 Nanglais, £1. 15 West Pant-y-Go, 5s.

15 Emma. 35 Pennerley, £3 1/2.

WANTED TO PURCHASE:—Send price and number.

100 Cardiganshire Old Bog 100 Perkins Beach. 60 South Roman Gravels.

Bankers: Beck and Co., Shrewsbury and Welshpool.
Fuller, Bambury, and Co., London.

M. R. L. LISCOMBE AND CO.
39, SOUTH CASTLE STREET, LIVERPOOL.

Beg to inform their CLIENTS and the PUBLIC that they are PREPARED to do
BUSINESS in ALL CLASSES of MINING SHARES—English, Foreign, and
Colonial—at the closest market prices.

**M. R. THOMAS SPARGO, MINING ENGINEER, STOCK AND
SHARE DEALER, 224 and 225, GRESHAM HOUSE,
OLD BROAD STREET, LONDON, E.C.**

**M. R. CAMERON AND CO., SHAREBROKERS,
CHESTER, TRANACT BUSINESS in BRITISH and FOREIGN
STOCKS, and all marketable MINING and other SHARES, at close market prices.**

Messrs. CAMERON and Co. being in communication with some of the most ex-
plicable mine agents of the day, are in a position to furnish to correspondents
valuable and trustworthy information on Mining Investments in the United King-
dom, and elsewhere.

OFFICES: BRIDGE STREET CHAMBERS, CHESTER.

**M. R. R. PERCY ROBERTS,
FINANCIAL AGENT,
60, ENGLISH STREET, CARLISLE.**

**M. R. CHARLES F. COLLOM,
MINING ENGINEER, INSPECTOR OF MINES, &c.**

TAVISTOCK.

MANAGEMENT OF THE SOUTH DEVON FIRE-CLAY COMPANY.

Patentee of COLLOM'S PATENT REVOLVING FRAME for DRESSING TIN,
AMALGAMATING GOLD, &c.

INVESTMENTS IN MINES ARRANGED FOR CAPITALISTS.

N.B.—Mr. COLLOM is now promoting a company to work a tin and copper mine
in Cornwall of more than ordinary promise. One or two gentlemen, with influence
or capital could be admitted to join the promoters on very lucrative terms, by
making early application as above.

M. R. T. BUZZO, late Superintendent of the Calumet and Hecla Mining Company of Michigan, but now residing in California, is
prepared to EXAMINE MINING PROPERTIES, CONDUCT PURCHASES of
the same, or ATTEND to the GENERAL MANAGEMENT OF MINES on or
near the PACIFIC COAST. References asked, and given.
Address, "Box 359," Santa Clara, California, U.S.

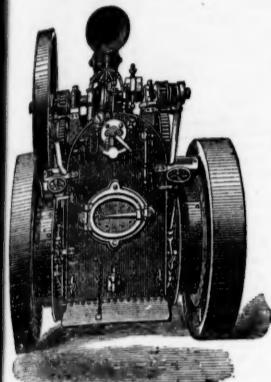
**THE TAVISTOCK FOUNDRY, IRONWORKS,
AND HAMMER MILLS,**
ESTABLISHED MORE THAN HALF A CENTURY,
have been purchased by
NICHOLLS, MATTHEWS, AND CO.,
Who are in a position to MANUFACTURE ALL KINDS of ENGINEERING,
and FOUNDRY WORK, SHOVELS, and MINING TOOLS of every
description; and have had a large experience in preparing
MACHINERY FOR FOREIGN MINES,
As well as selecting mechanics to erect the same.

J. WOOD ASTON AND CO., STOURBRIDGE

(LATE WOOD BROTHERS),
(WORKS AND OFFICES ADJOINING CRADLEY STATION),
Manufacturers of

CRANE, INCLINE, AND PIT CHAINS,
Also CHAIN CABLES, ANCHORS, and RIGGING CHAINS, IRON and STEEL SHOVELS, SPADES and
FORKS, ANVILS, VICES, SCYTHES, HAY and CHAFF KNIVES, PICKS, HAMMERS, NAILS,
RAILWAY and MINING TOOLS, FRYING PANS, BOWLS, LADLES, &c., &c.
Crab Winches, Pulley and Snatch Blocks, Screw and Lifting Jacks, Ship Knees, Forgings, and Use Iron of all descriptions,
STOURBRIDGE FIRE BRICKS AND CLAY.

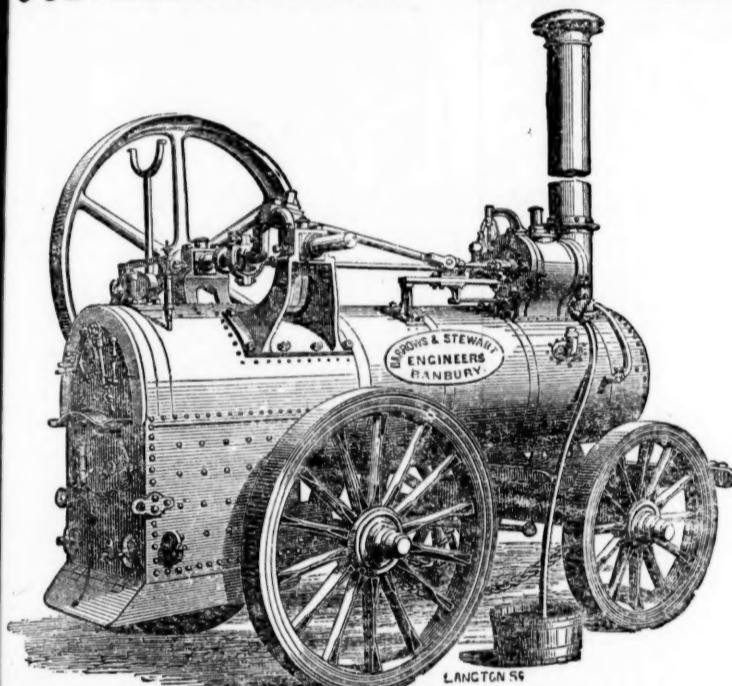
ROBEY AND COMPANY, LIMITED, ENGINEERS, LINCOLN.



PATENT PORTABLE HAULING AND WINDING ENGINE WITH PATENT DRUM WINDLASSES, FOR MINING PURPOSES.

This Engine is specially commended to Mining Engineers and others, as by its adoption—
Haulage along inclined drifts is easily and cheaply effected;
The expense of sinking new shafts is greatly reduced, neither foundations nor engine-house being required;
It is available not only for winding, but for pumping, sawing, &c.—a great desideratum at a large colliery;
It can be very quickly removed (being self-propelling), and fixed in any desired position.
Prices and full particulars on application as above, and also references to view the engine in successful work near Derby, Carnarvon, Haverfordwest, Darlington, and other places.

BARROWS & STEWART, ENGINEERS, BANBURY, MANUFACTURE CONTRACTORS' AND MINING PLANT,



CATALOGUES FREE BY POST.

THE BURLEIGH ROCK DRILL. THE BEST AND ONLY PRACTICAL DRILL.

IT DOES NOT GET OUT OF ORDER.
SPECIALLY ADAPTED FOR
SINKING AND MINING PURPOSES.

PROGRESSES through Aberdeen granite at the incredible rate of 10⁷ per minute.
SAVES £5 a day as compared with hand labour, independent of the enormous saving effected in the general expenses, such as PUMPING, VENTILATION, INTEREST OF CAPITAL, &c., from the fact of the "put-out" being increased four-fold.

DRILL POINTS.—The saving in steel alone is considerable. One drill will go through 20 feet of Aberdeen granite without sharpening.

Orders received and executed solely by—

Messrs. CHAS. BALL & CO.,
21, NEW BRIDGE STREET, E.C., LONDON,
ENGINEERS, CONTRACTORS, AND GENERAL MERCHANTS.

JOHN AND EDWIN WRIGHT,
PATENTEES.
(ESTABLISHED 1770.)
MANUFACTURERS OF EVERY DESCRIPTION OF
IMPROVED

PATENT FLAT AND ROUND WIRE ROPES
from the very best quality of charcoal iron and steel wire.

PATENT FLAT AND ROUND HEMP ROPES,
HIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULIN, OIL SHEETS, BRATTICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
CITY OFFICE, NO. 5, LEADENHALL STREET, LONDON, E.C.

BICKFORD'S PATENT
FOR CONVEYING
CHARGE IN
SAFETY FUSE,
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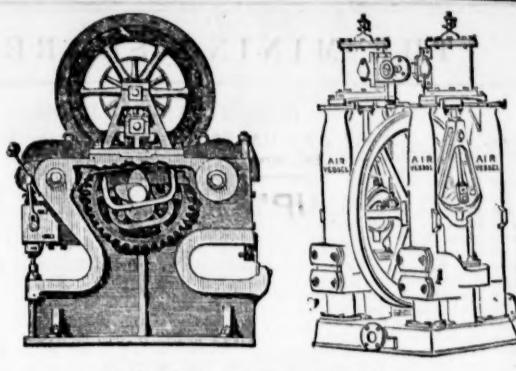


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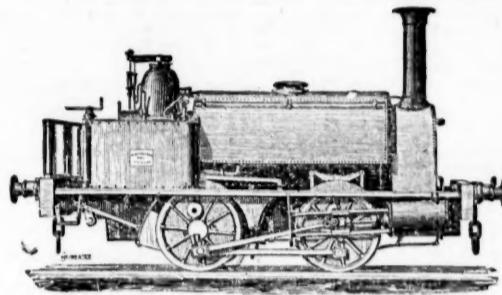
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